# The Northern Forest Rangers College

## Annual Magazine

VOL. 21

1968 - 69

w Hostel Building of N.F.R.C. —P. K. Mukherjee

CM-75 The Northern Forest Rangers College 1968-69

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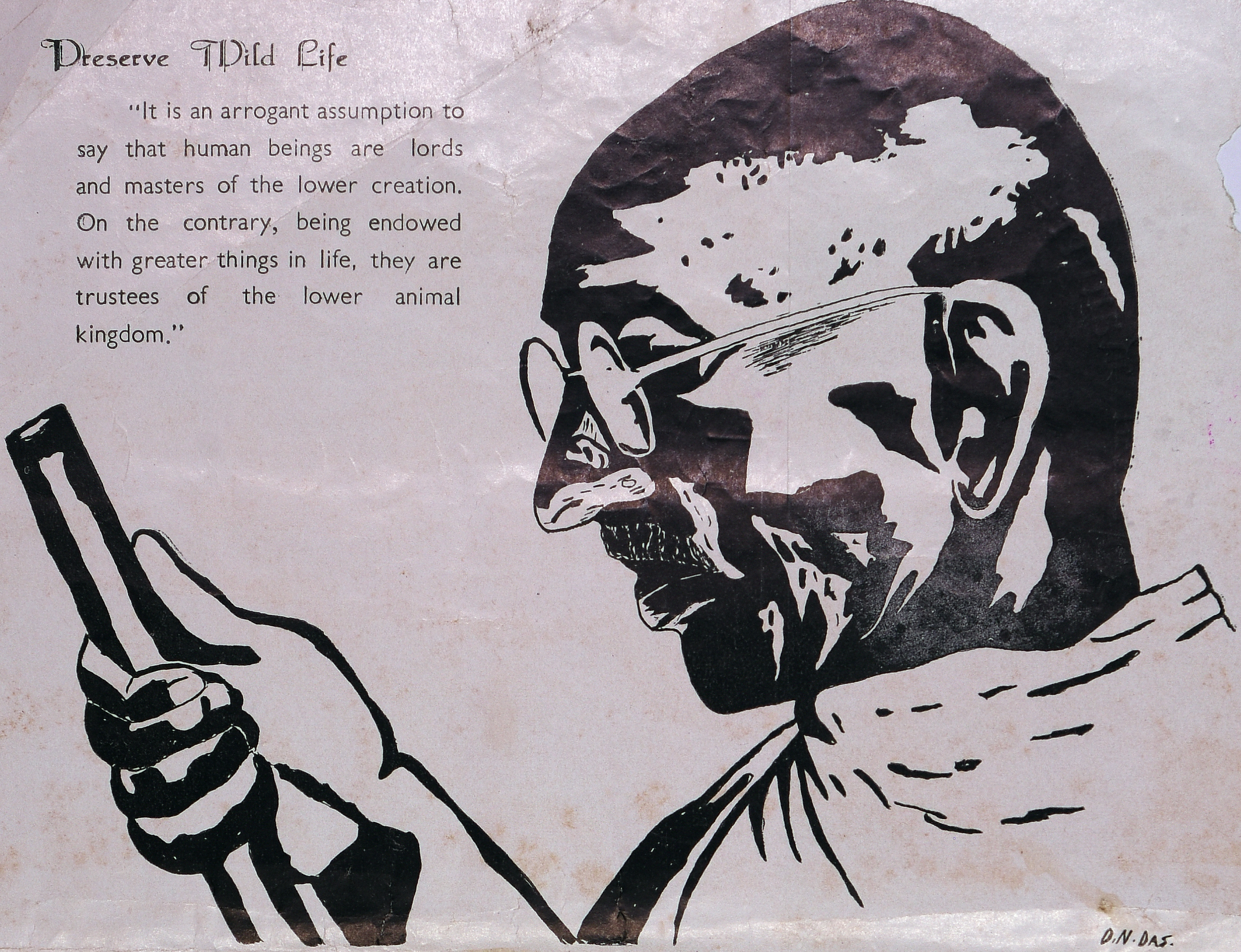
# Preserve Wild Life

"It is an arrogant assumption to say that human beings are lords and masters of the lower creation. On the contrary, being endowed with greater things in life, they are trustees of the lower animal kingdom."



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# Editorial

## MEN, MATTER AND MEMORIES

### Gandhi Jayanti Centenary Celebration

Gandhi Jayanti Centenary was celebrated on the 2nd October, 1969 in the Convocation Hall of the F.R.I. & Colleges. While portraying life sketch of Mahatma Gandhi, Dr. A. Purushotham, Director Biological Research recalled that Gandhiji's motto was to find peace in the midst of turmoil, light in the midst of darkness, and hope in despair. He was born to preach a new religion, a new Dharma with the motto of uplifting downtrodden humanity and scorching violence. Thus in a world surrounded, surpassed and indeed surcharged with an atmosphere of violence and hatred, in a world that believed and beheld in the atom bomb as the only means of discharging human passions and prejudices just to win temporal victories, there sprung from the bosom of Mother India a mighty warrior, a Mahatma who won the whole of mankind with his bow of love and arrow of peace. He concluded by quoting the often quoted statement of Gandhiji, "I do not want my house to be walled on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my house as freely as possible; but I refuse to be blown off my feet by any of them." Let us follow at least some of the principles, sacrifices or motto for which his whole life stood for. This would be the greatest homage we could ever pay to the Mahatma.

### Dr. Zakir Hussain

The sad and sudden demise of India's third President, Dr. Zakir Hussain on the 3rd of May, 1969 was the most shocking event to all of us. He was laid to rest on the 5th May, '69 in the campus of Jamia Millia. Dr. Zakir Hussain's life and work epitomise the best of the composite culture of India, a synthesis of Indian unity, secularism, nationalism and patriotism which he preached and practised with missionary zeal.

He was Governor of Bihar from 1957 to 1963 and Vice-President of India from 1963 to 1967. On the 9th May, '67, he assumed the highest office of the President of India. In his death the country has lost an eminent educationist, an outstanding scholar, a true humanist and a noble soul.

The staff and students of F.R.I. & Colleges paid their humble homage in a condolence resolution as follow:—

RESOLUTION

"In this meeting the staff and students of F.R.I. & Co[illegible] respectfully place on record its profound sorrow at the sad, sudden [illegible]e of President

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Zakir Hussain and conveys its deep sympathy and condolences to the members of the bereaved family and prays the departed soul may rest in peace."

**Retirement of Sri Hari Singh, I.F.S., Inspector General of Forests, Govt. of India**

Sri Hari Singh, I.F.S., relinquished charge of the post of Inspector General of Forests and ex-officio Joint Secretary, Government of India on the 15th January, 1969 after a tenure of about 5 years, during which period he was closely associated with the activities of the College. We wish him and his family a long and happy future life.

**Our New Inspector General of Forests**

We extend to Sri R.C. Soni, I.F.S. a warm welcome on his assumption of the charge of Inspector General of Forests and ex-officio Addl. Secretary to the Govt. of India on the 28th February, '69 and we offer him our hearty congratulations. We are sure that the College will be greatly benefited under his regime. Hithertofore he has been the Chief Conservator of Forests of Uttar Pradesh and has been closely associated with the activities of F.R.I. & Colleges for many years.

**Sri T.N. Srivastava, I.F.S.**

Sri T.N. Srivastava, I.F.S. relinquished charge of the post of the President, Forest Research Institute and Colleges, Dehra Dun on the 26th February, 1969 and joined his parent State U.P. as the Chief Conservator of Forests. During his 4 years stay here as President, he took keen interest in the College activities. We wish him and his family all the best in life.

**Sri R.C. Kaushik, I.F.S.**

Consequent upon the transfer of Sri T.N. Srivastava, Sri R.C. Kaushik, I.F.S. our Director of Forest Education has taken over the duties of President of Forest Research Institute and Colleges in addition to the duties of Education Directorate. We are sure that the Institute is bound to be benefited by his dynamic personality and revolutionary ideas on forestry research and training. We extend him a warm welcome in his new assignment and wish him good luck.

## ABOUT OURSELVES

**Staff:**

The year under report marked a number of changes in the Instructional staff of the College. On the 1st of April, 1968, Sri K.P. Rustagi, I.F.S., who joined the College on 11.5.64, left the College to join the Indian Forest College. He could thus be in our midst for nearly 4 years. Our loss has been the gain of the Indian Forest College. We wish Sri and Smt. Rustagi the best of health and happiness.

Sri S.K. Suri, I.F.S., Lecturer in I.F.C. joined our College on the 1st April, 1968. **He** has been afflicted with the most tragic blow of destiny—the accidental death by burning of

Smt. Suri on the 24th May, 1969. Our heartfelt sympathies go with Sri Suri and his pretty young daughter in their tragic bereavement. We pray to God to give fortitude to Sri Suri and his daughter to bear the irreparable loss. A condolence resolution was also passed to this effect by the students and staff of the College.

Shri M.M. Kulkarni, an Assistant Instructor of the College, reverted back to his parent State Maharashtra in April, 1968. He could be with us for three years. He joined the Special Refreshers Course (January-June, 1969) at the Indian Forest College. He was kind to send an article entitled, "Plant-Water Relationship" for this issue of the College magazine. This is very interesting and educative and we thank him very much for his co-operation and hope he will continue to oblige us in future as well. We wish Shri Kulkarni and his family the best of health and happiness.

An important event during the year has been the transfer of Sri Ram Parkash from the College to the post of an Assistant Editor, Editorial Board, F.R.I. Sri Ram Parkash, popularly known as *Choudhury Saheb*, joined the College on 1.9.54 as an Assistant Instructor from the then Punjab Forest Department. He was promoted to the post of Instructor on 1.12.58. He was taken into I.F.S. on its creation with effect from 1.10.66. He left the College on 31.5.68, after having thus served for more than 13 years. During this long span, he had the privilege to train a large number of Forest Rangers serving not only in different parts of this country but to many of our neighbouring foreign countries. *Choudhary Saheb* was very closely associated with the activities of N.F.R.C. Association. He was the Chief Editor of the College Magazine for many years. He has written a number of Notes on Forestry subjects. His book "Surveying and Levelling for Forest Colleges" has been reprinted in 1968 which proves beyond doubt, its popularity amongst the students of Forest Colleges and field foresters. Another book "*Elementary Physiography for forest Rangers*" is also an important contribution from him. *Choudhary Saheb*, besides being a successful teacher was a strict disciplinarian, at the same time he had a kind heart and love for the students. His departure from this College has been a great loss. We wish Sri and Smt. Ram Parkash the best of health and happiness. We are happy to note that Sri and Smt. Ram Parkash continue to associate with the social activities of the College. We also express our thanks to Sri Ram Parkash for his article "*Forests—the benefactor of Mankind*" which is published in this issue of the Magazine.

Almost at the same time when Sri Ram Parkash left the College, Sri P.H. Uttam Singh, I.F.S., a Deputy Conservator of Forests in Bihar Forest Department, joined the College in May, 1968. Sri Uttam Singh does not require any introduction. He had the privilege to serve this Institution twice before. He was here during the period 1947 to 1953 and from 1959 to 1965. We are sure, the students and staff alike will profit by his experience. We extend him a hearty welcome and wish him a happy time amidst us.

Lastly, we are happy to announce that Sri Gulab Chand, a Research Officer in Geology and Soil Science in F.R.I. and who is also our Instructor in Geology was united in a holy wedlock on 17th October, 1968. We wish Sri and Smt. Gulab Chand a long and happy conjugal life.

**Students:**

1968-70 RANGERS COURSE:

The total number of students who joined the College for 1968-70 course commencing from the 1st of April, 1968 are as shown below:—

| | | | |
|---|---|---|---|
| Assam | 10 | M.P. | 15 |
| NEFFA | 2 | Maharashtra | 20 |
| West Bengal | 4 | Jammu & Kashmir | 16 |
| Bihar | 10 | Punjab | 3 |
| Orissa | 18 | Foreigners—<br>(Under Colombo Plan) | |
| Tripura | 1 | Ceylon | 4 |
| Haryana | 1 | Kenya | 2 |
| U.P. | 4 | | |
| | | Total... | 110 |

The juniors joined at the New Forest Section of the College. The seniors 76 in number, stayed back at the city section.

**Tours:**

*Juniors*:—The first tour was the hill tour to Chakrata Forest Division during May/June '68, having camp halts at Kanasar, Konain and Mundali. This provided a good basic background of forestry life to the new-comers. On return, during July, '68, they had planting exercise at Bhaniawala (Dehra Dun East Forest Division). The second tour started in November, to Gorakhpur, Haldwani, Ramnagar and Rohilkhand Forest Divisions and back. The 3rd tour started in December in Dehra Dun East Forest Division, and Nangal. The tour was completed in January, '69. Field Survey Examination was held during camp-halt at Lachhiwala.

*Seniors*:—As usual the seniors visited Kulu and Kangra Forest Divisions during May-June, '68. During rains, they had plantation exercise at Bhaniawala. In November-December, they had their field Engineering Exercise at Roorkee, and in December, they left for U.P. and Madhya Pradesh tours. In view of paucity of funds, the tour was limited to these areas only. In course of the tour, they could visit the Delhi Zoological Garden, the

Ghana Bird Sanctuary at Bharatpur, the soil conservation work in Brijbhumi Division, Agra and the Teak and Bamboo forests of Hosangabad Forest Division and North Betul Forest Division, with camp-halts at Bori and Baretha. On return, they had their crop-measurement exercise and Road Alignment work at Karwapani (Dehra Dun West Forest Division) during January, 1969.

**The New College Hostel:**

The long cherished desire of accommodation at New Forest for the students has at last been fulfilled. The two wings of the hostel under construction for a couple of years have just been completed by the side of the College building facing the Botanical Garden. The approach road, cycle shed, servants quarters, etc., however are still to be provided. The hostel in two blocks comprises 100 single seated rooms in each with adequate modern bathrooms and lavatories. A photograph of one of the two wings of the hostel has appeared on the cover page of this Magazine.

**Annual Athletics & Sports:**

"*Mens Sana in Corpore Sano*" (Sound mind in sound body) is the motto of the College and so in keeping with the motto, physical training, sports and games constitute an integral part of the training. The College team participated in the Annual Sports and Athletic tournament of F.R.I. and Colleges. This year, the performance of the College team in the Athletic and track events held on the 27th and 28th March, 1969 was most creditable. The College team was victorious with a thumping majority and annexed most of the prizes (for details, see N.F.R.C. Association Report). We were, however, unlucky to win only a solitary championship in Volleyball. Sri E. Lokubalasuriya of Ceylon was declared the best athlete not only of F.R.I. & Colleges but also in the Dehra Dun District tournament. We congratulate all those responsible for the team championship. We, however, record our special appreciation for the superb performance of Sri E.L. Lokubalasuriya. We wish him the best of health and a most colourful sports career in his home country Ceylon.

*Annual Marathon Race*:—The annual marathon race which is a very thrilling event in the College was held on 9.11.68. This is a race for 8 miles to be covered within 80 minutes by each student. We are happy to announce that Sri E.L. Lokubalasuriya came first and was awarded the cup of the Govt. of India at the Annual Convocation held on 1.4.1969.

*Indoor Tournament*:—The Indoor tournament was equally interesting and was held amidst the students of the College only. The details may be seen in the report of N.F.R.C. Association published in this issue separately.

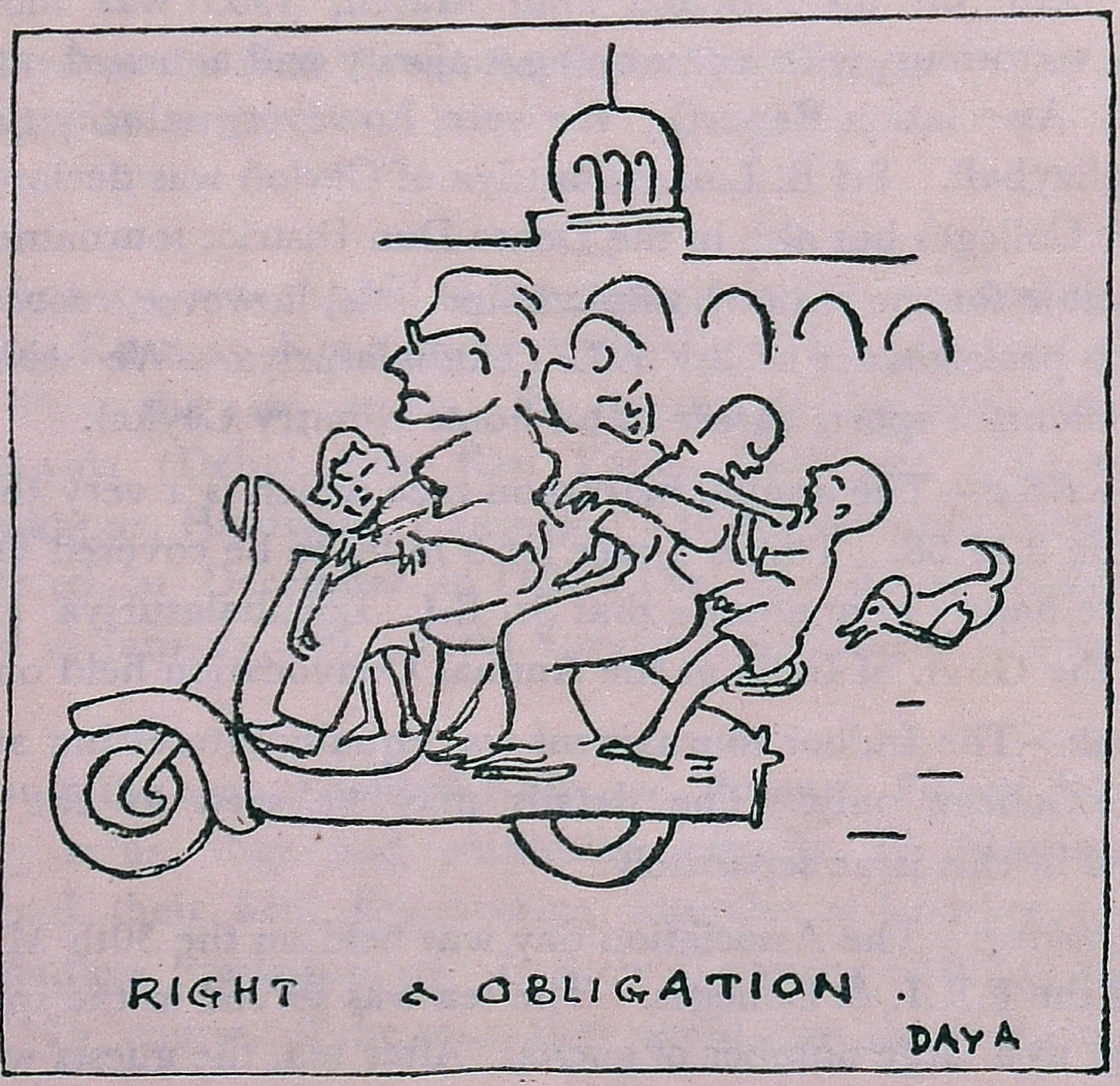
*Annual Social Gathering*:—The Association day was held on the 30th March, 1969, in the Convocation Hall of the F.R.I. & Colleges. The tea was served in the spacious lawns of the F.R.I. main building, to a large number of guests. After tea, the guests were entertained to

a variety entertainment programme of Songs, Orchestra, Skits, Qawwali and Bhangra. Skit "viva voce" by S.N. Singh and others, Qawwali by M.B. Mughal and party and the thrilling Bhangra elicited special applause from the audience.

Smt. R.C. Kaushik was kind enough to give away the prizes to the participants and to the various prize winners of Indoor Games, Declamation and Debate contestants and to those whose contributions to the Magazine 1967-68 (Vol. XX) were found to be the best (result appears in the N.F.R.C. Association Report published in this magazine elsewhere).

*Convocation*:—The Annual Convocation of the I.F.C. & N.F.R.C. (1967-69) course, was held in the Convocation Hall of the F.R.I. & Colleges on 1.4.1969, and presided over by Dr. Ram Subhag Singh, Union Minister for Railways, Govt. of India. He delivered the Convocation Address and gave away the certificates, prizes and awards to the outgoing students. Out of the 76 students, six passed with Honours while the remaining got higher standard. Sri D.K. Bose from West Bengal stood first. We congratulate Sri Bose for his achievement and all the outgoing students for their successful completion of the course. We wish the foreigners bon voyage and hope they will be keeping up their association with this College, through their contributions to the College Magazine.

N.M. Prasad



## OUR HOMAGE TO HUSSAIN !!!

By
N.C. Mohanty and P.S. Darp (1968-70)

Like the dreadful lightning from the dark clouds,
Like the thunders rolling with a piercing noise;
A heart-rending tidings sweeps over thy people !
Who cherished thy vibrant voice to live longer !
They say—"Ill tongues run like ocean tides,
Our belov'd Hussain ends his worldly ties" !!!

O' India's true patriot ! illustrious warrior !
(freedom fighter)
Symbol of secularism, ardent lover
Of 'truth and nobility'; that enchants the land for ever,
O ! the institution of faternity !
behold—they brood over your fall !!!
And to thee, the mourners for the depart'd soul
Better is to pour no tears, after the Great Call;
But to imitate the light he enkindl'd,
To offer the best tribute, in the way he longed—
"Vow in the name of the lost vitality
Not to rear deformity in your UNITY."

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### Ability

The first half of life consists of the capacity to enjoy without the chance, the last half consists of the chance without the capacity.

—Mark Twain.

# Forest—the Benefactor of Man

By

Ram Parkash

*Assistant Editor, Editorial Board, F.R.I., Formerly Instructor N.F.R.C.*

## Introductory

Love and admiration of trees is almost universal, even though the full benefits of woodland are not realised by man. We live so close to wood, even if away from the woodland, right from cradle to the grave, that seldom do we spend a moment in environs devoid of wood. However the pity is that we have taken wood too much for granted as a limitless and inexhaustible gift of nature like air and water, and have failed to appreciate that forest resources, like all other gifts of nature, would rapidly shrink, unless judiciously and scientifically manged. A majority of people still fails to understand the vast and varied benefits of forests and their vital role in the national economy. The impact of the various publicity media for disseminating knowledge about forests has, as Prof. Emeritus V.S. Rao put it, "reached the minds but not the hearts of the people". Whereas most of them can easily evaluate the tangible benefits of forests as a source of timber, industrial raw material, firewood, charcoal, and innumerable minor products, such as gums, resins, oils, tans, drugs, fruits, medicinal plants, fodder, to name only a few, it is rather difficult for them to visualise their indirect or protective and aesthetic influences which operate so gently and imperceptibly, though surely. This points out to the imperative need for persistent efforts to enlighten public opinion with regard to the multifarious uncomputale benefits which the forests bestow, such as maintenance of an equable climate, protection of the hillsides against erosion, soil stabilization and moisture conservation, reducing the intensity of flash floods and regulating even stream flow during the dry period, provision of aesthetics and recreation, and opportunities of much sought after rest and diversion in this persent day hectic life of stress and strain.

## Man and Forest through the ages

The history of man reveals that forests preceded him on this planet and, before the dawn of the civilization, the greater part of the globe was densely covered with some sort of natural vegetation. In the primeval days man looked upon these woodlands adjoining his settlements as a wilderness and a menace, as they harboured enemies, human and animal. With the march of civilization, and the progressive increase in population, destruction of the forests started, ostensibly for the legitimate purposes of cultivation. The relics of the primeval forest now exist only in a few isolated and uninhabited regions. Rapid colonisation and

growth of industrial complexes, townships, irrigation and power projects, air fields, road and rail extensions and increasing demand for cultivable land relegated the forests mainly to the inaccessible hilly ramparts of the country. The age old traditions of veneration for trees were gradually forgotten. Expediency and immediate material benefits changed the outlook of the successive generations, though much against the interests of the posterity. In a densely populated country a stage is ultimately reached when any further depletion of forests may lead to perilous consequences. Several ancient civilizations, e.g., Sumerian, Babylonian, Persian, Macedonian, came to grief because of their failure to recognise this critical point in time. In our own country, Goverdhan, Vrindavan and Madhuvan, reminiscent of Lord Krishna, are no longer forests, and are characterised by scorching temperatures and blinding dust storms in summer. The Siwalik hills, extending between the Punjab in the West to Assam in the East, are now bare and their streams choked with sand. The deep gorgeous ravines of Yamuna, Chambal, Narbada and Mahi present a ghastly spectacle. The Rajasthan desert is advancing towards the Gangetic plain at the rate of about half a mile annually. The beautiful Nilgiris are now bare. The hill sides of the Himalayas in Kumaon and Kangra are fast eroding for want of vegetal cover. Thus a relentless war against forests characterised the progress of civilization. However a redeeming feature of the modern industrial civilization is the recognition of the importance of forests and forest produce to national economy. Our revised National Forest Policy (1952) has taken cognizance of the indispensability of forests for productive and protective purposes, in our planning for the national prosperity. Our forests are no longer to be regarded as an inexhaustible reserves for extension of agriculture. The right of forests to occupy land permanently has now been recognised and forestry is no longer to be viewed as a mere "hand maiden" of agriculture but as it promoter and protector as a "foster mother".

**Forestry as a Land Use Practice**

Forestry in India is an aspect of land use, i.e., utilization of the available land to its best advantage. There are only three ways in which land can be productively used—for agriculture, pasture and for forestry. The common feature of all these forms of land use is that in each case we have plants which draw on the resources of the soil through their roots and impound the radiant solar energy by photosynthetic processes in their leaves, to produce products useful to man and animals. Woodlands, with undulating canopies exposed to the circulation of Carbondioxide (which is replenished by respiration of plants and plant organisms) campare favourably with the food crops in this respect. Forests are less exacting in their Nitrogen and mineral requirements than agricultural crops and, therefore, can utilise even poorer soils. In scientific forestry the removal of the product, namely wood, which is ligno-cellulose, has very little effect on the depletion of site fertility. Equally important is

the fact that the Nitrogen and the minerals in the trees are located mainly in the leaves, the twigs and the bark and not in the bole, which is what is removed from the forests. This organic matter in due course, on decomposition, makes nutrients again available for the tree growth. The Nitrogen and mineral nutrients circulate within the forest in a cycle. Some of these are, of course, lost in the stem and through leaching from the soil but, at least in moderately fertile soils, this loss is probably more than made good by weathering of minerals and deposition of nutrients in rainfall.

Woodlands, therefore, tend to build up soil fertility and, except on the poorest soils, do not require artificial fertilization for satisfactory growth. Moreover, soils under woodlands usually have good physical porosity and aeration.

In agriculture, on the other hand, the removal of the grain, fruit or leaves results in gradual depletion of the mineral resources of the soil which have to be made good by fertilizers. Now take the case of pasture lands, with little or no tree growth, which are used mainly for pastoral grazing. The animal flesh, wool and hide consist of proteins, substances rich in Nitrogen, also containing Phosphorus. Thus an animal crop incorporates large amounts of Nitrogen, Calcium, Phosphorus, derived from the soil through the medium of grass, and the result of such cropping (animal) is a constant drain on the soil fertility, unless manurial treatment is given.

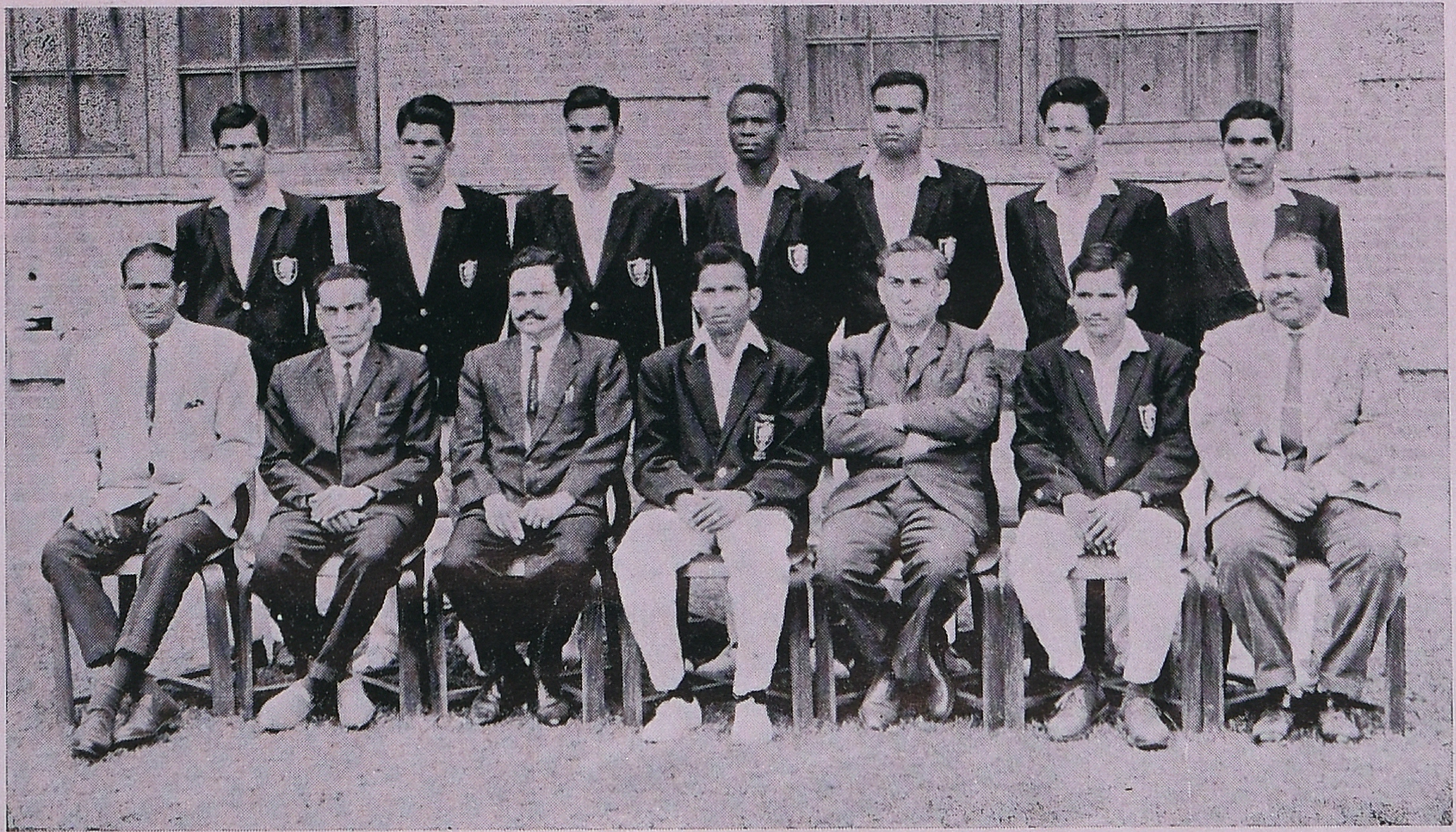
Forests are thus a self perpetuating and renewable resource, whereas food and fodder are renewable resources only with artificial aid. Whether the end product is wood or food or fodder, it is, as Ranganathan put it, *grown* in the soil and not *mined* out of it; and growth implies an endless vital process, while mining is merely a translocation of materials, the supplies of which must inevitably come to an end, sooner or later.

In a balanced national economy, both forestry and agriculture play supremely important roles for sustenance of human civilization. Another fact which deserves due recognition is that the forests are also essential to maintain and increase the productivity of agricultural lands in many ways, e.g., regulated water supply, maintenance of an equable climate, provision of leaf manure and fodder, timber for agricultural implements and fuel for the hearth so as to divert cowdung to its normal use as manure. Shelter belt plantations along coastal fringes (e.g., Casuarina plantations on shifting sands on the West Bengal, Orissa and Andhra Pradesh coasts) control the ravages of violent winds, immobilise coastal sands and protect agriculture crops. In the arid regions, windbreak plantings protect the agricultural fields against desiccating winds. Fertility and productivity of agricultural lands is so intimately bound up with sound forestry practices that the neglect of a country's forest wealth is invariably reflected in diminishing agricultural returns. Forestry is thus not a competitive but a complementary land use to agriculture.

NORTHERN FOREST RANGERS COLLEGE,

Winners of F. R. I. & Colleges

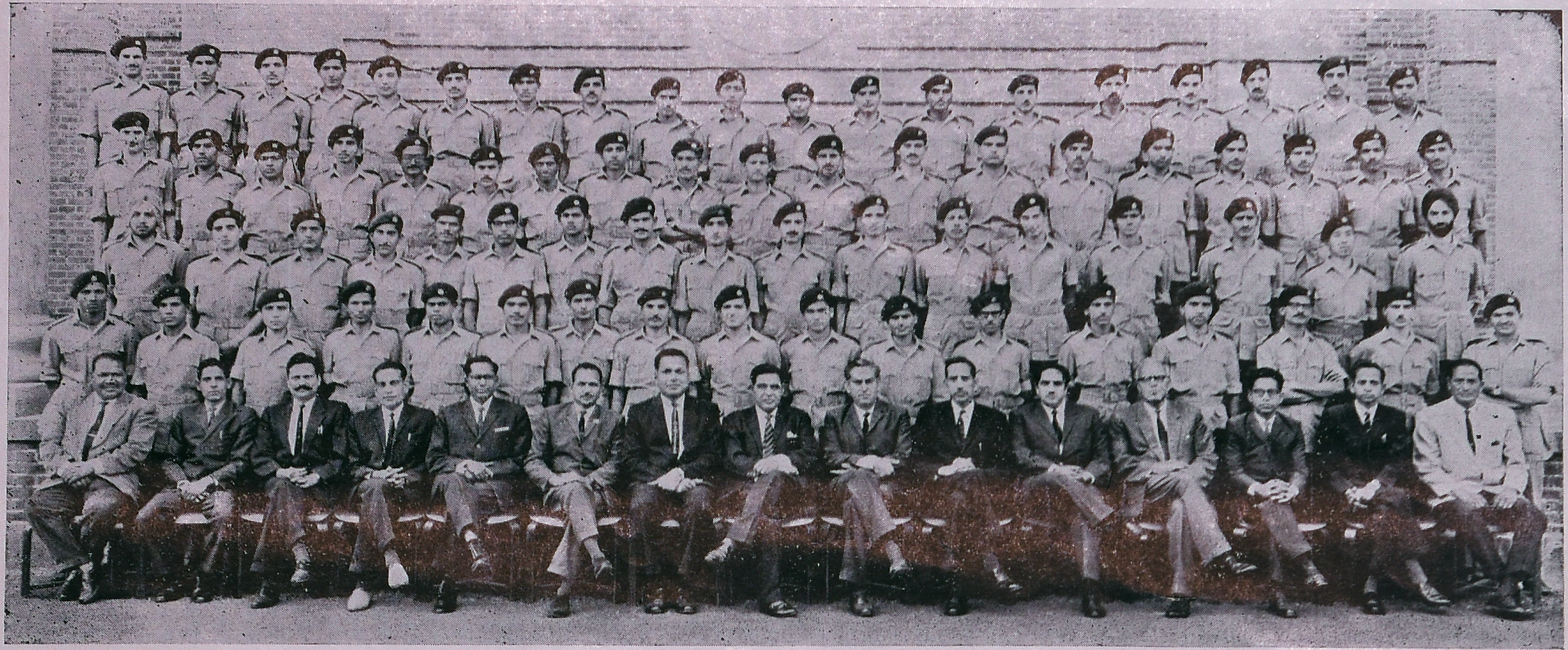
**Athletic Sports, 1968—1969**



**On Chairs** (L to R)—Sarvashri Kunwar Singh (P.T.I. New Forest), T. Mehta (O/c Sports, New Forest), D.S. Singh(O/c Sports City Section), E.L. Lokubalasuriya (Hon. Sec. Games,) K.V. Kakkar (Principal,) N.S. Bundela (Hon. Joint Secy. Games), Bhagwan Singh (P.T.I City Sec.).

**Standing** (L to R)– Sarvashri S.J. Singh, S. Godapola, V.K. Kaushal, P.A. Diro, G.S. Singh, P. Liankhama, N. Moharana.

# NORTHERN FOREST RANGERS COLLEGE, DEHRA DUN—1967-1969 COURSE



On Chairs (L to R)—Sarvashri Bhagwan Singh (P.T.I. City Sec.), G.S. Saxena (Asst. Instructor), D.S. Singh (Asst. Instructor), T. Mehta (Asst. Instructor), N.M. Prasad (Instructor), K.P. Rustogi (Instructor), K.K. Sharma (House Tutor, City Sec.), R.C. Kaushik (P.R.I.), K.V. Kakkar (Principal), Ram Prakash (Instructor), S.K. Suri (House Tutor. New Forest) P.H. Uttam Singh (Instructor), H.S. Saxena (Asst. Instructor), N.M. Kulkarni (Asst. Instructor), Kunwar Singh (P.T.I. New Forest).

Standing 1st Row—Sarvasri E.L. Lokubalasuriya, N. Ahmed, S.C. Cintury, J.R. Sahoo, R. Nayak, N. Moharana, A.K. Verma, R.L. Mishra, M.B. Mughal, G, Mohapatra, M.N. Pati, T.K. Nandi, N. Mitra, P.K. Jaipuriyar, B.K. Mohanty, M.L. Sharma, D.V. Kapil.

Standing 2nd Row—Sarvashri Rajinder Singh, Md. Yusuf, A.K. Misra, P.K. Burman, K.C. Jena, N. Kar, G.P. Mohanty, S.C. Sinha, S.C. Panda, R.N. Kaul, C. Pradhan, J.N. Buragohain, A.I.S. Abdali. S.C. Nayak, S.K. Sinha, S.T. Bhutia, K. Jit Singh.

Standing 3rd Row—Sarvashri Shafi Ahmed, Mahesh Lal, A. Louis, D.P. Sarkar, S.L. Bhattacharyya, D. Das, A.K. Sen, R.M. Sarkar, S. Bardoloi, T.R. Paudiyal, D.K. Bose, C.M. Bawa, G.S. Singh, D.K. Das, C. Paricha, S. Panda, B.N. Naik, A.S. Chakraborty, P.A. Borah.

Standing 4th Row—Sarvashri M.S. Muzaffar, S.S. Chib, A.N. Jha, S.D. Abayawardana, B. Lama, J.C. Singhal, M.S. Powar, S.K. Negi, P.K. Chakraborty, C. Lalvuanna, D. Nath, B.N. Singh, D. Tavitayya, B.L. Bhat, P. Borthakur, P.G. Bhattacharjee, A.R. Latoo, A.H. Ahangar, S.N. Singh.

**Our dependence on Forest Products**

Arguments are somestimes advanced that timber is getting out-moded and that with the passage of time effective substitutes such as steel, concrete, brick, coal, oil, gas, plastic, synthetic fibre, coal tar derivatives, synthetic fabrics, etc., will considerably displace timber and other forest produce from the market demand. This is, however, not correct. Notwithstanding the introduction of modern alternative constructional materials, timber will continue to be indispensable for world progress. Timber holds a unique position because of its extraordinary adaptability, its unlimited potentialities for use, its general availability, its variety, lightness and ease of fabrication by simple tools even at the small plants and on the farm. Its use for certain purposes may have declined but others are coming up such as ply-wood, pulp and paper, fibre board, laminated board, rayon, etc. During the last world war, wood was used for many purposes for which it is not normally used in peace time, e.g., manufacture of sugar, producer gas, alcohol, etc. For these and many other reasons the dependence of even the progressive countries on forests for requirements of industrial raw material is considerable. There is already an apprehension amongst foresters in the U.S.A. and Europe that wood consumption is exceeding the production. In developing countries, which are not technologically advanced, such as India, reliance on forests for timber and other produce will continue to be substantial for a long time. Problems of increased production and better utilization of wood and other forest produce are now matters of world wide importance.

**Employment of labour in Forestry and Forest Industries**

Forests make a valuable contribution to the employment of rural labour in the vicinity of the forests, which is employed on various operations connected with raising, tending and protection of forests, fellings, conversion and transport of timber and fuel, collection of minor forest products, etc. Equally substantial is the employment potential created by a large number of forest based industries, which process the forest raw material for a variety of purposes. It is estimated that in India, on an average, about a million workers are employed daily, some part time and others whole time, in Forestry and Forest Industries.

**Role of Forests in Soil and Water Conservation**

One of the most important, and probably the least appreciated, benedictions of forests is their inestimable role in the conservation of soil and water resources. Soil and water are nature's precious gifts, on which depends the very existence of man. The reckless destruction of forests and other vegetal cover from sloping lands in the hills, desert margins and other erosion sensitive areas, is the main cause of soil erosion, whether by water or wind. Nearer home, the examples of the Rajasthan desert, the eroded slopes of the Siwaliks of Hoshiarpur and the *cho*-infested plains, the archaeological evidence from excavations in Harappa and Mohenjo-daro clearly indicate the consequences of destruction of the protective

green mantle. A dense growth of trees, shrubs and herbs affords a very efficient protection to the soil against erosion. It checks the run off by reducing the severity of rainfall, offering mechanical obstruction to run off, thereby increasing the infiltration into the spongy soil and thus building up the storage capacity of the sub soil reservoir of water. The seapage water travels underground, feeds perennial springs and streams, and is available miles away from its source for beneficial purposes. Not only do we need water, we want a regulated supply and not floods in one season and dry sandy beds in the rest of the year. Catchment forests play a vital role in moderating floods in the rainy season and ensuring an even stream flow in the dry months. In this context, let us take note of the warning given by Humboldt that: "by felling trees, which are adapted to the slopes and summits of mountains, men, in every climate, prepare at once for two calamities: want of wood and water".

Dams across rivers provide irrigation, sustain hydro-electric projects and afford protection against floods. But these reservoirs will get silted up if the river catchments are not well forested, thereby reducing their capacity, life and efficiency. Take the case of Bhakra dam project. Fears are being expressed that unless the existing forests in the Sutlej catchment are protected against excessive grazing, fires, unregulated fellings and the denuded hill slopes afforested, the eventual life of the dam may fall considerably short of the expected 150 years at the existing rate of silt deposit in the reservoir. The Government of India is financing elaborate schemes for the treatment of the catchment. Extensive surveys have been conducted and watershed management plans drawn up. Critical areas requiring immediate attention have been located and suitable soil conservation measures, such as silt detention dams, gully plugging and check dams, live hedge and boulder revetments, afforestation on the hill slopes, terracing and contour bunding, construction of escape weirs and graded channels in the agricultural lands, and rehabilitation of pasture lands have been provided.

Wind erosion is equally destructive within its own sphere. We are all aware of the menace of the advancing Rajputana desert, and the sand dunes—both coastal and inland. The Rajputana desert is a vast expanse of sandy waste, interrupted by rocky hills and waterless valleys, which is insidiously advancing towards the alluvial plains of Panjab and Haryana, and threatening to swallow up the peripheral fertile lands. Extremes of temperature, low rainfall and high wind velocity are responsible for the creation and continuance of the desert. Vegetal cover alone can impart cohesiveness to the soil particles by addition of organic matter—later converted into humus—and retard the velocity of wind, thereby reducing the erosion of soil by saltation. Forests not only exercise a beneficial influence on the physical and chemical composition of the air, by cleansing it from dust and Carbon-dioxide, but also have a beneficial mechanical effect against the violence of wind, which can blow away the fertile top soil, or transport masses of sand and deposit them on productive farmland, roads, railway lines,

habitations, etc. Formation of shelter belts and wind breaks, for effective protection of cultivation and habitation against the desiccating influence of winds and for improvement of the water regime, is now a well recognised farming practice in dry and arid regions and coastal areas, which are liable to be smothered by drifting sand. Thus forests, the "sentinels mounting guard on mother earth" (as late M.D. Chaturvedi put it), by protecting the hill slopes, feeding the perennial springs and rivers, controlling the ravages of floods, reducing the severity of storms and preserving the soil fertility, perform services no less valuable than those rendered by the defence services of a nation. Maxwell has aptly remarked: "Instead of talking of national protection by Army and Navy, we should talk of national protection by means of Forests, Army and Navy."

**Forests and conservation of natural Fauna and Flora**

Deforestation upsets the natural biological balance and leads to the inevitable consequences of impoverishment of both natural fauna and flora. As Professor Thacker put it: "To a scientist a forest means more than just a tract covered with trees and undergrowth; it means a magnificent laboratory of Nature with a myriad forms of life, flora and fauna, in which he can study biological phenomenon in their natural setting."

India is endowed with a very rich heritage of wild life. However, our indiscreet encroachment into the natural habitat of wild life by clearance, heavy fellings, fire and grazing, etc., has upset the ecological equilibrium. Added to this, the adventures of the trigger happy poacher into their natural abode has resulted in the progressive decline in the variety and numbers of the beautiful denizens of the wild. A large number of species are extinct or on the verge of extinction, e.g., the lion, rhinoceros, brow antlered deer, the musk deer, the Kashmir stag, the Indian wild ass, the snow leopard; and amongst birds, the Indian bustard, pink-headed duck, golden eagle, white-winged duck, to name only a few. In the words of Pt. Nehru : "Life would become very dull and colourless if we did not have magnificent animals and birds to look at and to play with. We should, therefore, encourage as many sanctuaries and parks for the preservation of what yet remains of our wild life".

**Recreational and Aesthetic value of the Forests**

Another aspect of forestry, which is slowly receiving public recognition in this materialistic world, is its recreational and aesthetic value. Like the social benefits bestowed by schools, roads, health services, courts, cinemas, postal services, etc., on a civilized society, the indirect benefits from a forest also cannot be evaluated in terms of monetary equivalents. Forests are a veritable paradise for a naturalist, poet, philosopher, lover, artist, scientist and sportsman alike, and provide a much needed diversion, relaxation, recreation and peace to the mind, worked up under the stress and strain of gruelling chores of the present day busy and competitive life. For each one of us there is ample food for the mind and the soul, the exact substance of which defies description.

It was in these forests that the Upanishads originated. It was in the forest that Lord Buddha found salvation from the eternal problem of life and death. Rama wandered through the forest over the length and breadth of the country. Our classics reveal how deep was the love of our ancestors for the forest. The poetry of Shakespeare, Byron, Shelley, Wordsworth, Keats, Ghalib, Zauq (to name only a few) is replete with references to the natural beauty of the forests, the blossoms, the birds and animals, and the awe-inspiring serenity which fired the imagination of these poets.

**Adequacy of Forest Area**

With a view to realising the multifarious benefits, both computable and uncomputable, which forests can bestow, a reasonable extent of the land area has to be dedicated to forests. However, for various reasons, there is no absolute yardstick to determine the extent of adequate forest area. It has to be judged with reference to the productive capacity of the forest to meet the requirements of the population for wood and other forest products and the requirements of the land—particularly agricultural—for preservation of physical factors and protection against erosion by wind, water and gravity.

In India, forests occupy about 22% (against the world average of 25%) of the total area of the country. Our forests now occupy mainly hilly regions, which are, as a rule, far from the towns and intensively cultivated areas. In the temperate European countries, where the number of component species is small and most of them are utilizable, this percentage may be adequate to meet the country's varied demand for a balanced economy. Under tropical and subtropical conditions where, at present, only a small fraction of the total number of species and an insignificant number of trees per hectare are generally considered exploitable, a higher overall percentage of $33\frac{1}{3}$ has been suggested to fulfil our requirements for forest produce. The percentage will, however, vary from region to region from 20 to 60%, depending on topography, land capability and other local factors Viewed in this context, our existing forest area is deficient and its uneven distribution makes the deficiency all the more pronounced in certain region. Proper distribution is of no less importance than the overall proportion or the gross production. The deficiency is to be made up by planting up wastelands unfit for cultivation. Because of certain climatic and geographical factors militating against afforestation, certain States are less suited for establishing forests than others. The latter should aim at making up deficiencies in other States, to maintain the overall average.

In short, forests are important for their productive functions as a source of timber for defence, communications, house building; raw material for various vital industries such as match, plywood, chipboard, fibreboards, paper, furniture, synthetic fibres; fuel, fodder and grazing; gums, resins, tanning material, essential oils, spices, drugs, medicinal herbs, oil seeds, fibres, lac, myrobalans, etc. The list is not exhaustive. Shri S.K. Patil, referring to the importance of forest raw materials in the economy of the nation, made a significant observa-

tion at the Central Board of Forestry Meeting in 1960 that "amongst the items that make for human prosperity and happiness, wood is almost as important as food". Apart from their direct benefits, forests are indispensable for protection against the hot and desiccating sun and strong winds, stabilization of soil and prevention of floods and regulating stream flow. They play an important role in promoting scientific thought or philosophy and, in the words of Prof. Rao, serve as "magnificent playgrounds for tired mankind seeking peace and spiritual strength".

It would be appropriate to quote here an extract from Pt. Nehru's message to Indian Board for Wild Life in September, 1956 : "Our forests are essential for us from many points of view. Let us preserve them. As it is, we have destroyed them far too much. It is true that as population grows, the need for greater food production becomes necessary. But this should be done by more intensive cultivation and not by the destruction of the forests, which play a vital part in the nation's economy."

The forest is a gift of Nature; a great benefactor of Man. It is our duty to preserve and manage it to the best of our ability, not only for our own well-being but also that of the generations to come.

## INESCAPABLE P.T.

By

A.R. Ismail (1969-71)

Five forty-five every dawn,
the *chowkidar* makes the bell ring,
and with great reluctance of mind,
the boys get up with a spring!

Aiming in two proper directions,
Obviously to bathroom and some to latrine,
while some seemingly walk in pain,
Perhaps terrified to face the awaiting Bhaghwan Singh!

Dressed in half pants and 'banyan' white,
marching to the field passing through two gate;
while their poor souls fill with fright.
Yonder! 'the expected' waiting in delight!

Lining up in the fresh morning air,
attendance is taken with great care;
then inspecting the line in his own way,
Looking for bushy beards and bushy hair!

In the process they try to behave,
then he roars, "why don't you shave"?
The victim explains, of course, terrified!
with reasons he may as well not forgive.

Round the field, they run in a line,
may be six, seven or eight, it depends on his whim,
And he stands obviously awaiting,
to wet them more in perspiring!

Exercises may be of various sorts,
Starting with jumps and ends with 'break off'.
Sometimes this can also be a fun,
when it involves the horrible 'dog-run'!

Just to write off the conclusion,
allow me to insert this simple quotation,
"You'll forget many things in your lifetime,
but this P.T. will remain in mind".

I don't want to say sorry,
Nor do I intend it as an apology.
I want you to be gay and happy,
for myself, well, let me remain naughty!

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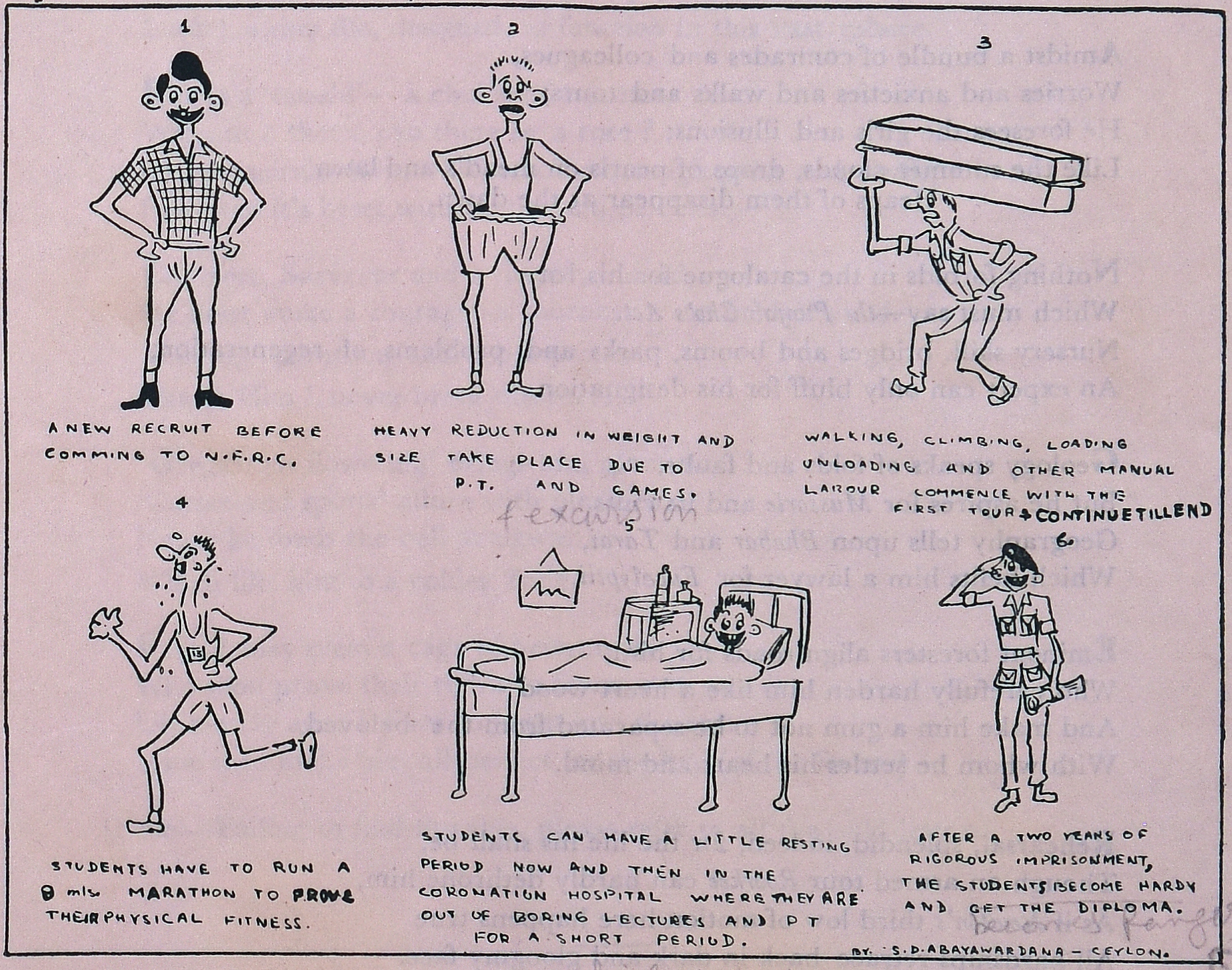
LIFE OF A N·F.R.C. STUDENT.



# A QUIZ

BY
N.C. MOHANTY ( 1968-70 )

'Rough—out-door-life'—I cater for him,
Who shall be banish'd to a lonely cave;
Not as the monarch, but as a custodian:
Better a companion of a lovely damsel, with a gorgious green veil.

Amidst a bundle of comrades and colleagues,
Worries and anxieties and walks and tours;
He foresees the girls and illusions;
Like the summer clouds, drops of pearls on mead's and lawn
Heaps of them disappear at the dawn.

Nothing forbids in the catalogue for his lot,
Which must say—*the Punjab Cho's Act*.
Nursery skill, bridges and booms, parks and problems of regeneration,
An expert can only bluff for his designation.

Geology speaks of folds and faults,
But he aspires for *Mussorie* and its cults.
Geography tells upon *Bhabar* and *Tarai*,
Which befits him a lawyer for *Eucalyptii*.

Eminent foresters align roads for him,
Who carefully harden him like a heart-wood
And make him a gum not to be separated from the beloved,
With whom he settles his heart and mind.

Rehearsal, splendid, indeed, for the life his shall be,
Though an armed tour *Roorkee* can hardly dethrone him,
As if *Newton's* third low of motion here happens true
All hardships retrace back in dark and gloogmy face.

**C**opiously trickle down tears on his cheek,
When he departs, after a convocation-meet,
Certifying him to be fit enough to fly;
To the sky of twinkling trees for a garlanded gossip in gay,
though a dumb reply with trembling of lips of leaves.

**O**n a voyage in this gigantic ocean of works,
Peace and pleasure (discipline) form the mast of his boat
Amicable and amiable solution to the fogs in the sky
Can rightly sail the boat in a steer-clear way.

**L**augh and be merry, O' my little chaps !
Never be cowards : who die many a time before it stops
Levelling and Law will give you ample pleasure
Look ! a tiny life, designed, to function in this vast sphere.

**L**ife is a 'mould'— a choice of a potter,
Without a thorn, can there be a rose ?
Glory encircles him, who marches through pales and perils;
For often it's beset with thorns and prickles.

**E**ngineer, Surveyor and a doctor, indeed,
He must make a courageous journey in the field of yield.
Tending operations and boom proper,
Thank Him ! never bring disorder.

'**G**regarious flowering' brings him glamour,
'Games and sports' allure with pleasure
Never he fonds the bell at dawn,
Which lifts him to a colder Zone.

**E**ven I may seem a cage to newcomers
Who soon prove their rights in forest courts.
Ultimately aims a river to jump into the sea.
Mine is to make him all perfect for the key (of the forests).

[Note:—Failing to find the clue, please refer to all the bold letters.]

———

# Mechanised Plantation—A Landmark in Forestry

By

S.C. Nayak (1967-69)

Tree-planting is nothing new in India. Ever since man realised its importance and its beauty charmed him, he started planting trees, starting with fruit trees, avenue trees and medicinal plants. Plantation of trees on a large scale chiefly for timber production started with *teak* plantation in Nilambur more than a hundred years ago. Some of the old important plantations, of which mention is invariably made in the class room are the *teak* plantation of Nilambur and Bamanpokhri, *Sal* taungyas in Gorakhpur, Dehra Dun and North Bengal, the Changa-manga plantation of *Sissoo* of the Punjab (now the plantation lies in Pakistan) and the *Casuarina* plantations on sea-coasts. Ever since then, there have been plantations in almost all the states in India in some form or the other, though not extensively till our country achieved independence. In the post independent era, with the formulation of the great Five-Year Plans, there has been a growing tempo in plantation of fast growing species of economic importance. Man-made forests of quick growing trees are the order of the day not only in India but in the whole world. They are raised to meet the increase in demand for fuelwood, smallwood for agriculture, timber for constructional purposes, plywood, particle board, etc., and pulp wood for paper and other industries. An F.A.O. specialist rightly pointed out, "the world is waking up to the potential of man-made forests". Man-made forest's role in supplying timber and other forest produce is their most obvious function. But they have many other functions just as important, such as the regulation of water flow and protection of soil, etc. They have also frequently a direct impact on the every day lives of the people around.

Of all the plantations visited by us during two years of our training at N.F.R. College, the mechanised plantations in Tarai and Bhabar tract in U.P. impressed me the most. This is because a vast tract which had many adverse factors and so was feared for plantations has been brought into a luxuriantly growing forest tree species within a very short period. This could be achieved only because of mechanization and it is an eye opener in the field of plantation.

**The tract:**

The Tarai and Bhabar areas lie at the foot hills of the Himalayas in Haldwani, T & B and Ramnagar Forest Divisions of U P. The tract is characterised by vast bouldery beds of detritus under a thin porous gravelly soil. The average altitude is between 200 to 400 metres. The slope is gentle.

**Climate:**

The annual rainfall is around 170 cm received mostly during the rainy season (middle of June to end of September) followed by dry period with occasional rains in January and February. During winter cold wind *dadu* blows during the night which was experienced by us in our tents at Chorgalia and Lalkua. The tract was feared chiefly because of the dreadful malaria.

**Past History:**

We were told that the areas were under Revenue Department earlier, burdened with rights and concessions. There was heavy incidence of grazing and fires were frequent. These adverse factors led to a very inferior type of forests with little or no natural regeneration. Of course, Sal predominated but were malformed, stunted and scattered. There were miscellaneous forests of inferior growth and at many places swampy forests representing Low Alluvial Savanah woodland, with *Casaria tomentosa*, *Miliusa velutina*, *Bauhinia variegata*, *Albizzia* spp., *toon*, *Trewia* spp. *Lannea*, *Semul*, *Adina*, *Butea monosperma* and coarse grasses suchas *Saccharum spontaneum*, *Thameda arundinacia*, *Imperata cylindrica*, *Desmostachya bipinnata*, etc.

**Mechanization:**

In view of the foregoing factors it was clear that afforestation in the tract was not an easy task. Thanks to the Anti-Malaria drive undertaken with the good co-operation of W.H.O., which had an impact in eradication of Malaria. Coupled with this was the introduction of the power tractors during the year 1953-54. In fact plantation was started in 1952 but it was a failure for want of labour. The Government then adopted the *Taungya System* by leasing out the area with the cultivators temporarily to raise the agriculture crop in conjunction with the tree species. A large number of displaced persons from West Punjab settled down in the tract and gave a helping hand in raising the plantation. A tractor workshop was established at Lalkuan and a number of tractors, the crawler and the wheel types were brought into operation chiefly for soil working, harrowing, ridging and also for trampling of grasses. This was really a break through in the difficult circumstances prevailing over there and can truely be called a landmark in the history of plantation.

## PLANTING TECHNIQUE

**Site clearance:**

The area is clearfelled one year in advance by the contractor. All trees are uprooted and the pits are filled back. The area is divided into suitable plots of about 40 hectares with approach roads and firelines all round.

**Fencing:**

The entire area is fenced with 5 strands barbed wire at 15, 22, 30, 38 and 45 cm. from the ground level.

**Soil working:**

It is of paramount importance and consists of the following operations:

(a) Ploughing Initial breaking of the soil is done by Crawler Tractor (50 to 60 H.P.) and a 5 disc plough. The soil is worked to a depth of 15 to 20 cms in depth. This is carried out from November onwards.

(b) Harrowing—This is done with the help of a wheel type tractor (40 to 50 H.P.) and an offset harrow of 16 to 20 discs. This is usually done during March and April.

(c) Ridging—Ridging is done with a wheel type tractor of (40 to 50 H.P.) and a ridger. Ridges are made 3.7 metres apart centre to centre and form raised continuous beds of worked soil, about 2/3 metre wide at bottom to about 20 to 25 cm high. This helps aeration, avoids water logging damage and provides an additional height to plants for competition against weeds besides providing systematic plantation in a straight line.

**Choice of Species**

The following species have been found to be doing very good under the climatic and edaphic conditions over there.

Plywood—*Adina cordifolia, Cedrela toona, Dalbergia sissoo, Holoptelea integrifolia* and *Bombox seiba*.

Matchwood—*Ailanthus excelsa, Kydia, Holoptelea, Semul* and *Trewia nudiflora*.

Pulp—*Eucalyptus* (Mysore gum) and *Paper mulbery. Poplars* have been raised in a very limited area where irrigation has been assured.

Katha—Khair (*Acacia catechu*).

**Method of raising plantations:**

This depends upon the species and the locality. The technique adopted in Tarai and Bhabar plantation is as below:

Semul—Stumps (at 3 metres in khair lines).

Gutel—Sowing in pure lines.

Kanju—Sowing in pure lines.

Toon—Stumps in pure blocks (1.8 metres apart in lines).

Haldu—Stumps (1.8 m apart in lines).

Sissoo—Sowing in pure lines.

Khair—Sowing in pure lines.

Eucalyptus—Entire transplants in containers (3.6 metres × 1.8 metres or 3 m × 3 m apart in lines).

Paper Mulbery—Stumps (1.8 m apart in lines 3.6 m apart).

Sowing by manual labour is started in the 1st week of June and completed by middle of June.

Stumps—Stumps are planted on the ridges 1.8 metres apart with the help of crowbar, planting of stumps is started at the break of rain and every effort is made to complete by middle of July at the latest.

Bag plants—Utmost care is taken in transporting the *Eucalyptus* and other pot plants contained in polythene bags. Planting of the bag plants is started at the onset of monsoon and completed as early as possible, latest by middle of August.

**Tending:**

(a) Weeding—Three weedings are done during the 1st year and all during the rains. Plants are also spaced in the 2nd weeding. In the 3rd weeding, hoeing is also carried out.

(b) Two weedings are carried out in the 2nd year coupled with beating operations and spacing. In the 3rd year only one weeding is carried out. All plantations except for *Eucalyptus* are thinned during the 5th year.

**Fire Protection:**

Ultimate success of the plantation depends upon fire protection measures since the tract is the natural habitat of coarse grasses.

Supression of grasses is being attempted in the first place through cultivation of agriculture crop during the first and 2nd year of formation. The problem arises during the 3rd and subsequent years when they are kept under check by

(i) regular cutting and burning of fire lines.

(ii) harrowing and cross-harrowing where possible.

**Costs:**

The average costs on raising mechanised plantations are of the order of Rs. 700/- per hectare for Eucalyptus and Rs. 625/- per hectare for other species.

**Conclusion:**

The total area planted up in the Tarai and Bhabar plantation Division comes to 36,500 hectares till 1968. The area which was feared because of Malaria and which contained open miscellaneous species, coarse grasses and at many places grassy blanks, is now full of economic species and it is now hard to believe the original status of the landscape if the control plots are not visited. The man made forests lead us to conclude that *"there are miles of smiles"*.

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# What is Life

By
S.K. Suri
*Lecturer, Indian Forest College, Dehra Dun.*

———

Chirping of birds in the early morn,
Breathtaking hues in thc break of dawn,
Beautiful flowers in the well kept lawn,
Temple bells sounding with Mulla's azan.

Shouting, jumping, laughing children,
Singing, cooking, gossiping women,
Working, shirking, bossing men,
Drinking, gambling, hating men.

Child's cry in the lonely night,
Lone dog barking in the dead of night.
Faltering steps of a man in tight,
Love lorn song of a maiden in plight-

Music of sound is the music of life,
Life is struggle and struggle is life,
Suffering, weeping and laughing is life,
Death is the end of everything in life.

---

**O' GOD** I often sit and pray
**G**ive me a heart that's brave and kind;
**O'** Lord be kind upon thy child
**D**o give him power to serve mankind.

K.V.K.

# Forestry - Past, Present and Future

BY

P.K. MITRA (1968-70)

**Past**

Study of ancient history, clearly indicates that early Aryans were a pastoral people, interested in agriculture and shikar (hunting). Our holy epics Ramayana and Mahabharata give attractive descriptions of Dandakaranya and Nandvan. Those were the good old days, when our *Rishis* and *Munis* used to live in *Ashram* (huts) in the forest. There must have been nothing but forests and forests all around. With the meagre human population, forests were then really inexhaustible. In course of ages, the human population went on increasing putting more demands on agriculture and it had a repercussion on the forest lands. During the Hindu and Moghal periods, India was divided into big and small kingdoms. Forestry was then harvesting rather than growing. Harvesting too was confined to selected species in easily accessible areas. In many localities, forests were considered an obstruction for development of agriculture and were feared upon by the people as they abounded in *dacoits* and wild animals. This state of affairs continued till the end of the 19th century.

**Scientific Forest Management**

The foundation of the present day scientific management was laid in 1855 when Lord Dalhousie, the-then Governor-General of India, promulgated for the first time an outline of forest conservancy for whole of India known as the "Charter of Indian Forests". In 1864, Forest Department was established by Government of India and Mr. Brandis was appointed the first Inspector General of Forests. The first great step towards forest conservancy was the enactment of the Indian Forest Act, 1865. Whatever forests we have to our credit today, owe their existence to this Act and the enforcement of the laws. There grew the consciousness amongst the administrators the importance of forests and a realization that forests were no more inexhaustible. This realization was however confined to a small section of people—the forest officials and those connected with it. Initial years of developments were naturally slow because of want of trained personnel.

Demarcation of Government forests and preparation of their maps were a great task. To train persons for the Forest Department, a Forest School was inaugurated in 1878 at Dehra Dun. This school is the City Section of our College. We are proud of this school which led to the establishment of the Forest Research Institute & Colleges, which today occupy a pride place in the World and is the only Institute of its kind in South East Asia. With the

training of forestry personnel, the scientific forest management started. Plantation of the most important Indian species—the Teak—started and we still have some of the Preservation Plots of the first plantation of Teak in NILAMBUR in Kerala and BAMANPOKHRI in West Bengal. Then dawned the gloomy period for the Indian forests—the great World Wars I and II. These two great wars had a great impact on the forest wealth of India, resulting in devastating fellings of forests.

**Forestry in Post Independence**

Although the foundation of scientific forestry was laid in 1855 and we have by now celebrated 100 years of forest administration and also celebrated the Golden Jubilee of Forest Research Institute, the year 1947 marks an important milestone in Forest Administration and Development. A number of enactments were made which favoured to a great extent, consolidation of forest areas. The Zamindari Abolition Bill which gave rise to Land Reforms Act in many States resulted in merger of the Zamindari forests into Government. Naturally, as a result of this merger, a large forest tracts hithertobefore under unscientific management were brought under scientifically written Working Plans.

Another significant step in the development activity was enunciation of the new National Forest Policy of India in 1952. Some of the salient features of the policy are :—

(a) One-third of the total area should be under forest cover.

(b) Emphasis on Soil Conservation aspects of forestry.

(c) It urged the need for weaning the forest tribes away from the age-old practice of shifting cultivation.

The year 1952 was also marked for the creation of the Indian Board for Wild Life. It laid the emphasis on the creation of National Park and Game Sanctuaries.

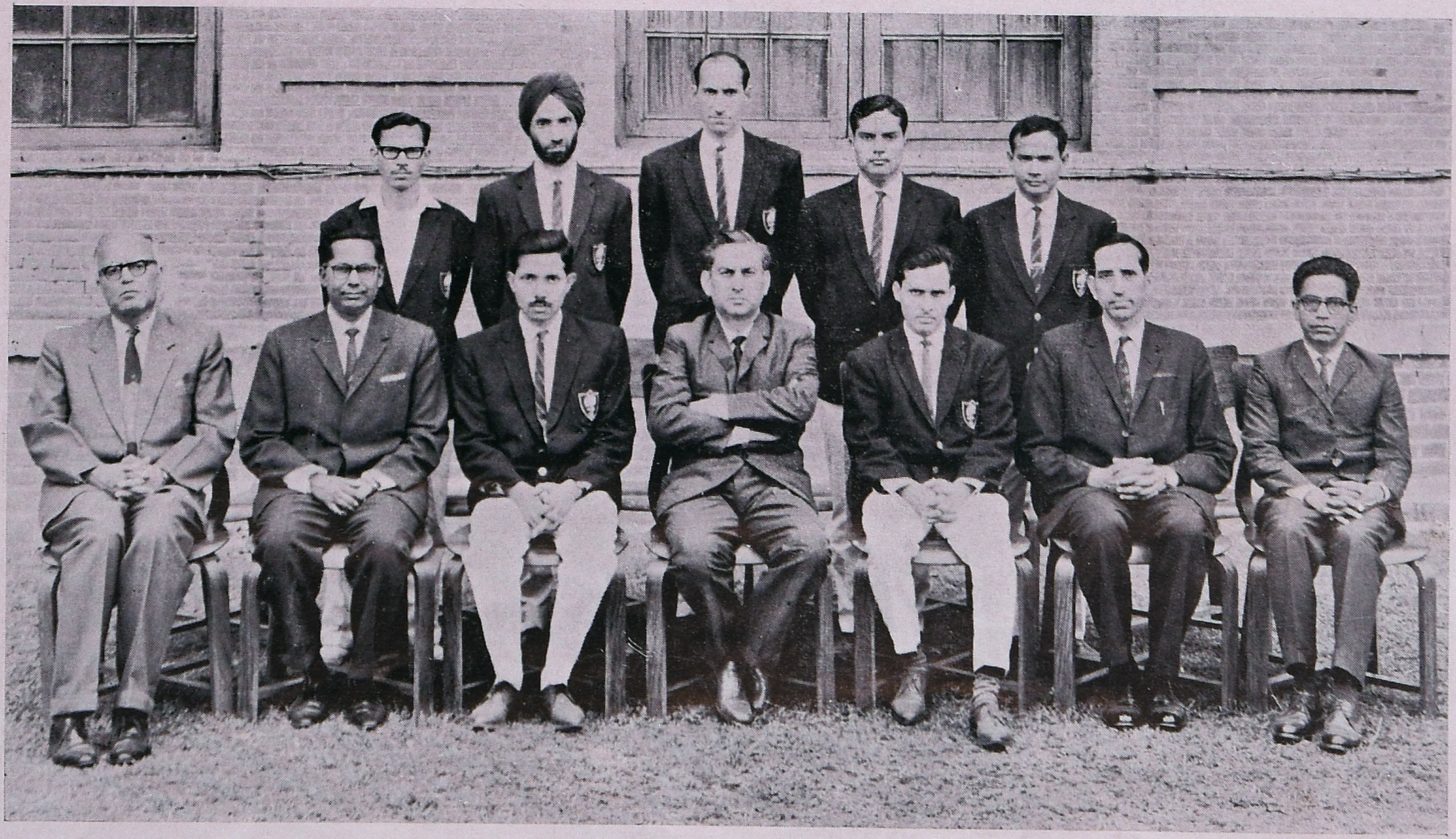
In keeping with the National Forest Policy, the Central Soil Conservation Board was established in 1954, which led to many research, demonstration and training centres all over India. Ever since it is engaged in the task of evolving ways and means in solving the great problems of flood control and soil erosion. Soil, which is the uppermost mantle of the earth and which is directly responsible for the prosperity of the vegetation (agriculture, forests as well as grassland) and upon which naturally depends the prosperity of the country, needs conservation and any progress till today is just a beginning.

While reviewing the progress of the forest in post-independence, mention must be made of the 3-Five Year Plans. These great National Plans chalked out to bring an all around National prosperity also allocated a sizeable quantity of fund for the development of forests. A few to mention amongst a long list of development items were :—

(i) Demarcation and notification of the Private and Ex-Zamindari forests under the Indian Forest Act.

## NORTHERN FOREST RANGERS COLLEGE

**GENERAL MESS COMMITTEE, 1968 - 1969**

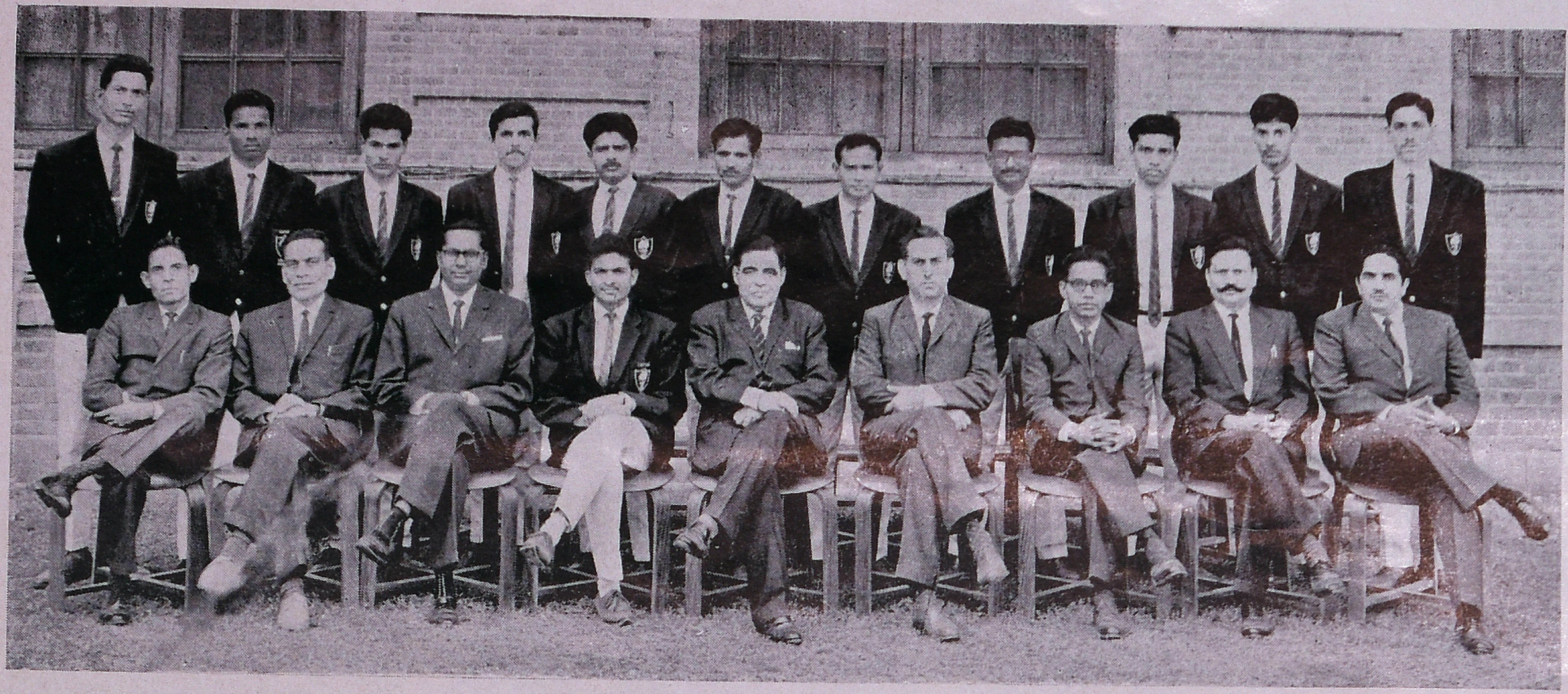


On Chairs (L to R)—Sarvashri P.H. Uttam Singh (O/c Mess, City Section), N.M. Prasad (O/c Mess, New Forest) P. Borthakur (Mess Secy., City Section), K.V. Kakkar (Principal), P.K. Chakraborty (Treasurer, City Section), Ram Prakash O/c Mess, City Section), H.S. Saxena (O/c Mess, New Forest).

Standing (L to R)—Sarvashri T.K. Nandi (Sectional Treasurer, City Section), K. Jit Singh (Store Supdt., City Section), S.S. Chib (Non-Veg. Member, City Section), B.N. Singh (Veg. Member, City Section) D. Nath (Veg. Member).

## NORTHERN FOREST RANGERS COLLEGE ASSOCIATION

### MANAGING COMMITTEE, 1968—1969



On Chairs (L to R)—Sarvashri G.S. Saxena (O/c Common Room & Science, City section), T. Mehta (O/c Sports, New Forest), N.M. Prasad (Chief Editor), D.V. Kapil (Hon. Gen. Secy.), R.C. Kaushik (P.R.I.), K.V. Kakkar (Principal), H.S. Saxena (O/c Common Room, New Forest), D.S. Singh (O/c Sports, City Section), S.K. Suri (Treasurer).

Standing (L to R)—Sarvashri S.K. Mishra (Hon. Joint. Secy., Lib. & Science), E.L. Lokubalasuriya (Hon. Secy., Sports), J.N. Bora (Hon. Joint Secy., Common Room); S.K. Negi (Asstt. Editor, Hindi Section), S.P. Tripathy (Hon. Joint Gen. Secy.) N.S. Bundela (Hon. Joint Secy., Sports.) D. Nath (Hon. Treasurer), S.L. Bhattacharyya (Hon. Secy., Common Room), P.K. Jaipuriyar (Hon. Secy., Lib. & Science). B.C. Das (Asstt. Editor, Eng. Section), D.P. Dwivedi (Asstt. Editor, Hindi Section).

(ii) Afforestation of fast growing as well as industrially suitable trees and bamboos.

(iii) Improvement of communication and transportation.

(iv) Establishment of wood-based industries.

(v) Increase in the number of paper and pulp industries, the match industries, etc.

(vi) Working of forests departmentally through Forest Corporations in many States.

**Forestry in Future**

In the recent past, there have been an increased tempo of forest activities, a big development of forest-based industries in our country. With the rising standard of living, increase in population and extension of agriculture, we find that our once "inexhaustible forests" are no longer adequate to meet even our current demands, their output is certainly far short of the projected requirements.

It has been estimated that the total growing stock of our forests is 2.138 million cubic meters corresponding to a stocking of 28 cubic meters per hectare as against the average World stocking of 110 cubic meters per heetare. The annual increment on yield of our forests per unit area is little over 0.5 cubic meter per hectare which is one-fourth of the World average.

Geographical area of India is 2.2% of the world but she has 13% of the world's population and 19% of the world's cattle population. The impact of this huge human and cattle population has a deterimental effect in the interest of country's forests and progress. The position is thus far from satisfaction. How far the forests will serve the nation in years to come will depend upon our approach, research, and how efficiently and effectively we will be able to implement them.

We must have a dynamic approach to our problem. One can make the forest trees grow more quickly and give higher returns on investments. One of the solutions is to grow fast growing species. We must not depend upon natural reproduction solely. It has to be supplimented by plantations. A bold step is required in treatment of chronic areas of Sal and some other species where so far sustained experiments have failed to induce any significant result. Such areas can be brought under plantation with suitable species.

Nearly 70% of India's total production of wood constitute towards fuelwood. Although it is linked up with our shattered economy, much could be done in making the fuelwoed surplus for industrial consumption like paperpulp, chip board, etc. This can only be done if we make use of coal, electric energy and gases extensively. Our future line of action must take into account the followings.—

(i) Rational use of timber,

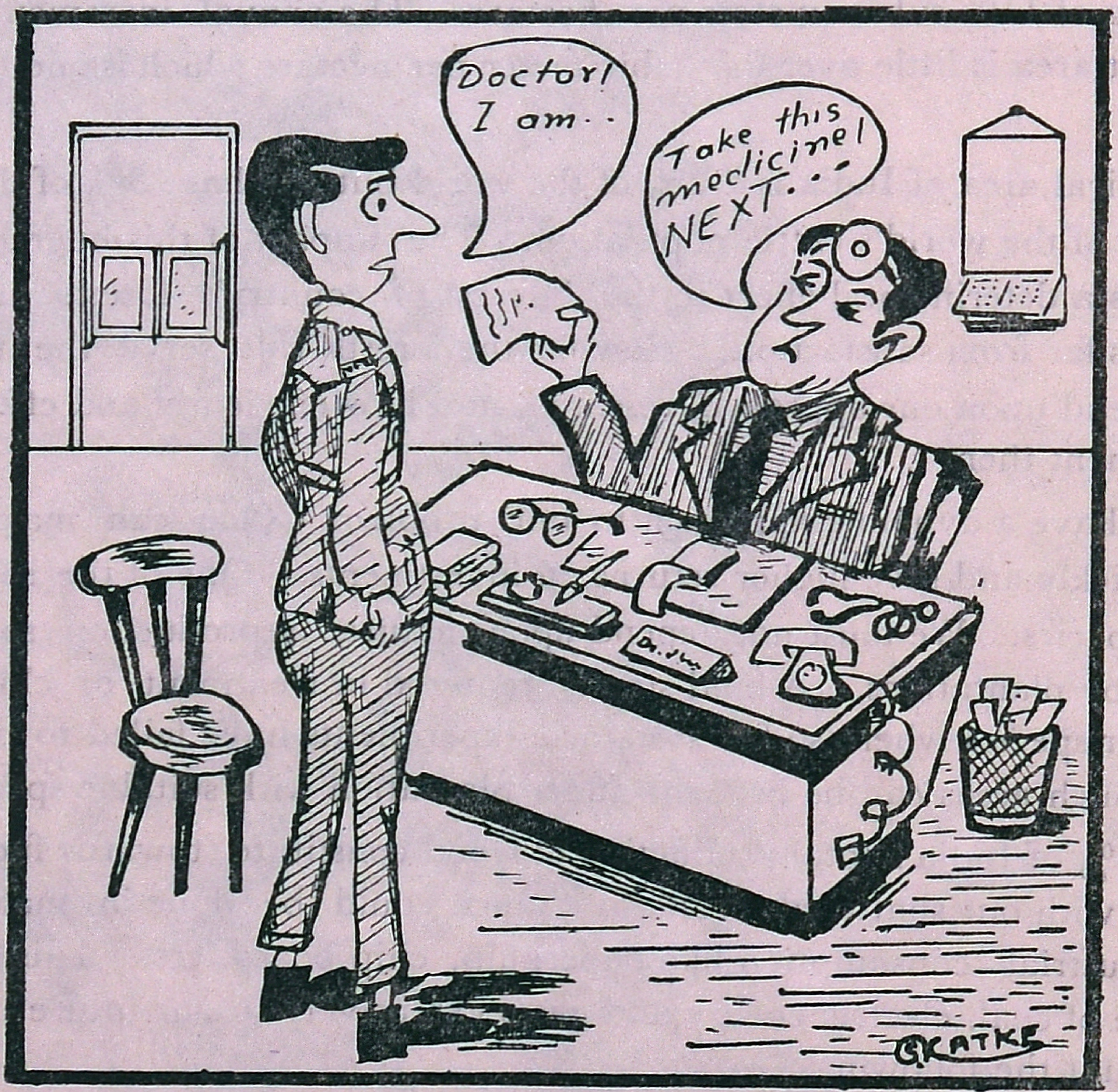
(ii) Extensive use of wood preservatives,

(iii) Extensive plantation of fast growing species,

(iv) Adoption of mechanised logging,

(v) Setting up of more wood-based industries like chipboard, fibre board, paper and pulp, etc.

Lastly, I would like to emphasise that we must have a dynamic approach and honest execution of the policy, which only, will enable us to win over the challange.



# Rambles

By
S.K. Suri
*Lecturer, Indian Forest College,*

1. **TERSE BUT TRUE**

**Tactful:**—Who can make a fool of others without the other person realising it.

**Boss:**—Who can blame his Assistants for his own mistakes.

**Specialist:**—Who has more questions than answers.

**Comfortable subordinate:**—Yes man.

**Field botany** —Lopping, crushing, smelling and whispering.

**Foreign tour:**—Lottery with various prizes like Tape recorder, Transistor, Camera etc.

**Forest based man:**—Forester, Forest Contractor.

2. **ABBREVIATIONS**

SODA........Save our Daily Allowance

D.B.H. ....Drink and be happy.

C.A.I. . .....Cruel and angry Instructor.

S.I.T·... ....Sambhar and Idli Tour.

N.F.R.C.....Never Forgetable Rigorous Confinement.

H.M.T.......Hon'ble Minister's Temprament

S.R.C.........Small Rejuvenating Capsule.

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A diplomat is a man who always remembers a woman's birthday but never remembers her age.

—Robert Frost.

# Plant-Water Relationship

By

M.M. Kulkarni, A.C.F. (Maharashtra)

*Formerly Assistant Instructor, N.F.R.C.*

**Introduction**

The influence of water on the vegetation of any kind on the earth is quite well known. However, in order to understand and appreciate the true significance of plant-water relationship, a fairly good knowledge of Botany is necessary.

Water is indispensible to plant-life, as it forms the most of the living-matter of the proto-*plasm*. In *algae* about 90 to 98% by weight is water and in woody plants, it is about 50%. What we call life, is in fact, the result of physico-chemical reactions going on within-each living-cell, whether it is in plant or an animal. Without the medium of water, these various reactions can not take place and hence all the vital processes which constitute life would stop. An account of these vital processes would show how indispensible water is to plants.

**Photosynthesis:**—During the process, six molecules of water unite with six molecules of carbon dioxide to form a molecule of glucose and six molecules of oxygen as would appear from the equation:

$$6\ CO_2 + 6\ H_2O \rightarrow C_6\ H_{12}O_6 + 6\ O_2$$

This reaction takes place in the presence of sun-light and chlorophyll. As water here actually takes part in the formation of carbohydrates its tmportance in this process is, without any question, great.

**Respiration:**—Respiration is enzymatic oxidation of complex organic food substances for the liberation of energy. In this process, water is given out. The part played by water here is that it acts as a hydrolysing agent, i.e., breaking up of a molecule of water into two parts. Enzymes require the medium of water in order to act. Their activity is lowered to a standstill in the absence of water. In respiration, little water is necessary but that little is required.

**Digestion:**—Again, digestion of food is done by various enzymes and enzymes in turn require water for their action. The decomposition of complex organic food into simple assimilable form is the process of digestion and it is in the presence of water and by its agency that this vital process is carried out in the plants.

**Growth:**—Turgidity is the primary condition of growth. Absorption of water constantly goes on when cells grow and elongate. Large quantity of water is used up in this process. It is said that growth requires half of the total water required for the other vital processes.

**Movement:** – Opening and closing of stomata and other plant movements such as paratonic turgidity are mainly governed by water.

**Translocation of food:**—Water is the solvent which dissolves all the food before its translocation. Translocation is greatly hindered in the absence of adequate water in the medium.

**Ascent of Sap:**—Since the sap itself is nothing but water with minerals dissolved in it, the phenomenon of ascent of sap could hardly be visualised without it. During the process, water containing the nutrients is absorbed by the roots and then transported to leaves and other vital plant organs, where it participates in various processes.

**Germination:**—A number of processes that cause the sudden transformation of dry seeds into young seedlings is called 'germination'. Everyone knows that the first prerequisite for germination of dry seed is an adequate supply of water, as the seed imbibes considerable quantity of water during the process. Without the presence of ample water, it is impossible for a dry seed to commence germination and hence here also water plays a very important part in all the groups of processes that associate with the germination of the seed.

Plants are very sensitive to their water supply. The various modifications that are shown by different groups of plants growing in different localities are mainly in relation to water. In dry situations where the amount of available water is small, the plants show dwarf and stunted growth. When there is abundant water and temperature the vegetation or plant growth is luxuriant, e.g., equitorial rain-forest and tropical-rain forest. As a matter of fact, the whole physiognomy of the vegetation is largely dependant upon the water.

The plants which grow in water are called hydrophytes. These plants show different modifications and adaptations in response to the habitat. The main characteristics of these plants are—poor development of root system, mechanical tissue, xylem elements, large air spaces with sometimes stellate hairs, etc. Water-plants show various floating arrangements, e.g., Eichornia cressipis (water hyacinth), we find the petioles swollen with spongy parenchyma containing air. The stomata in water-plants are always distributed over the upper surface. In water-plants the absence of thick cuticle and such protective devices as used for checking the loss of water are not found. In water plants heterophylly is very common, e.g. trapa, crowport. Water plants show good development of vegetative structures and reduction in reproductive structures. These plants are propogated entirely by vegetative means and seed formation is exceptional. Thus water plants represent the behaviour of plants well when they are supplied with abundant water.

The plants which grow in brakish or such water are spoken of as halophytes. These plants also show ecological, morphological and anatomical peculiarities, because the water available is far less than that available to the plants just discussed. These plants by various

morphological devices try to check the loss of water as there is actually physiological drought. Hence, these plants are generally stunted in habit and their shape is like domes. Leaves of these plants are thick, leathery with shining surface of dark green colour. Stomata are few and sunken or protected by hairs. In these marshy localities plants suffer from poor aeration and hence these plants are provided with special roots which are negatively geotropic and do the function of breathing and are called pneumataphores. Seeds and fruits of these plants are peculiar in that the seed germinates within the fruit when the latter is still attached to the parent plant. The radicle comes out of the seed and may attain a length of one foot before it falls off on the soft mud. This phenomena is known as vivipery. The halophytes develop water-storage tissue in their leaves making them succulant. The halophytes are thus provided with structures which greatly reduce the loss of water. The majority of these plants are annual; perennials are few. Examples of these plants are *Aricitia*, *Sonnertia*, *Ipomea*, *Spinifix*, *Brougaria* and *Rhizophora* species.

The plants which grow under moderate supply of water are called mesophytes. These plants are stately in habit and show structures for giving out water. The leaves of such plants are large and stomata are distributed on both the surfaces of the leaves. Mesophyll is differentiated into spongy parenchyma and palisade.

The plants which grow under scarcity of water are spoken of as xerophytes. Xerophytes in general are stunted. The growth of the shoot portion is generally very poor. Leaf surface is greatly reduced and structures such as phyllodes and phylloclades are common among these. The stem is fleshy and stores water. The development of prickles, thorns and spines is characteristic of these plants. Mechanical and conducting tissues are well developed and palisade is many layered. Roots are very long and penetrating. Concentration of cell sap is also very great. The fruits show hydrochasy. Latex and poisnous substances within these plants are generally met with. The plants in this case are subjected to very severe drought and hence these plants show every possible adaptations for storing and checking the loss of water.

Thus we see that water plays an indispensible part in the formation of different types of vegetation on the earth as well as in giving a specific form and shape to the individual plant. Hence the knowledge of this relationship is very essential before undertaking afforestation works in any area. Upon the recognition of this relationship alone, the success of all the silvicultural and regeneration operations largely depends.

# The Rose

By

A.C. Das (1968-70)

I come to the earth at a lovely dawn,
When the first rays of light peep through the dark horizon.
They come and suck in my beauty,
As a loafer aspires to a single kiss from a pretty.
Mine is to distribute honey and grains to them,
Glamour to the tired of the game (of the world).

* * * *

Decay and doom engulf me, as a frog to an insect,
When my coins meet up to the dust.
I come and enchant the world for a moment,
As Nature's device: to shower peace and pleasure for a quick alert.
They love me, from their innermost core.
In turn I decorate the gardens more and more.

* * * *

Likewise is the nature for your deed,
Which can blow your trumpet of glory indeed.
'Man may come and man may go'—but he's
One, to be ever worshipped, who serves the mass like a 'rose'.

[This short poem is dedicated to the 'ROSE GARDEN' in front of our College Building, New Forest.]

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**Age**

We do not count a man's years until he has nothing else to count.

—Ralf Waldo Emerson.

# Some Impressions of Sweden

By

N.M. Prasad,

*Instructor, N.F.R.C.*

**I visited Sweden to participate in a training course for forestry Instructors in teaching methods and techniques arranged by Food and Agriculture Organization of the United Nations and the Swedish International Development Authority, during May and June 1969. During the short visit, I had the opporiunity to see some of the Forests of Central and Southern Sweden, forest working and forest and steel industries. Sweden, whose land area is 1.4% of the total land area of the world and which is approximately one seventh of India is one of the leading exporting countries of timber products in the world. Some of the indelible impressions which Sweden has left in my mind find an expression in this paper.**

I alongwith Shri K.P. Rustagi, I.F.S. left Palam on 29th April at 5 P.M. by Caravelle an I.A.C. plane. It was a pleasant flight to Bombay in nearly 1 hour 40 minutes. Joined by the third participant Shri P. Pamanaban, I.F.S., Instructor, Southern Forest Rangers College, Coimbatore, we three, left Bombay for Sweden by a T.W.A. Boeing Jet (707) at 3.30 A.M. on the 30th April 1969 The flight by Boeing Jet was a thrilling experience. It was dark and so we were relaxing in the cosy seats of the plane. It landed at Tel Aviv (Israil) at 5.30 A.M. (local time) and this was the first foreign land to which I landed of course, confined to the Air port only. After haly an hour, the plane left for Athens. I saw the sun rising on the horizon from the plane flying at an altitude of 31000′. The white clouds appeared as big masses of spun cotton hanging all over, obstructing the vision at times. We reached Athens at 8.00 A.M. and stayed for the day. Greece reminded me of the Alaxander's invasion to India. The first impression which I gained of Europe was of the people well clothed apparently looking rich, wide clean roads with rushing cars and buses and absence of any biotic influence in the city. During the short stay, we could visit some of the sight-seeing places. We left Athens at 4 A.M. on 1st May by a S.A.S Boeing 737. The plane touched Rome, Zurich, Frankfurt and then Copenhagen at 10 A.M. We rushed to some of the important sights at the Danish capital The Mermaid, the Tivoli, the harbour etc. could only be seen during our eight hours stay at Copenhagen. We left Copenhagen at 5 P.M. Cool breeze of Sweden welcomed us and my woollen suit was insufficient to keep me warm on the May-day. We left for the Haga Air terminal, where we were received by Mr. E. Jeanson, Secretary of the course and he took us to Stockholm the capital of Sweden. We stayed at Hotel Bromma, where participants from Burma, Thailand, Ceylon, Malaysia, Phillipines, S. Korea, Formosa and Iran were staying. We were thirteen in all. I got up in the midnight

about 2.30 A.M. as the sun was shining and I had forgotten to put the curtain. It was difficult to believe the watch but soon I remembered of the mid-night sun at the Arctic during summer. The next day, we were given introductory talks on forests, its organization and working in Sweden illustrated by documentry films. The next two days were spent in sight seeing in the city. Stockholm is a city on water. The city is mirrored in its waters—waters that criss cross the city narrowing into channels and canals and widening into bays and lakes. It is this, that has caused the travellers to proclaim Stockholm the most beautiful city in the world the fact I dare to admit when I visited London, Paris, Frankfurt, Rome and Beirut on my return journey to India. The city is absolutely clean as the Swedish believe in the saying "*Cleanliness is next to Godliness*". The wide clean roads, with concrete footpaths on the flanks, with modern shops and buildings glittering with light, the tube-trains, the escalators in shops and elsewhere were some items most enjoyable and altogether a novel experience. Shopping is a great temptation in Stockholm. Even in out of way places fine modern stores offer a lavish range of goods. There is no slum in the city. Swedes are tall good looking. I was given to understand that there are one Car between 5 persons, one radio or T.V. set between 2 persons, and a telephone amongst 2 persons on an average, in whole of Sweden. The consumption of electric energy is 5000 K. watts per head and that of paper 350 lbs. per capita. These figures, besides others go to make Swedish living standard as one of the highest in the world. In Stockholm, one gets glimpses of the 21st century.

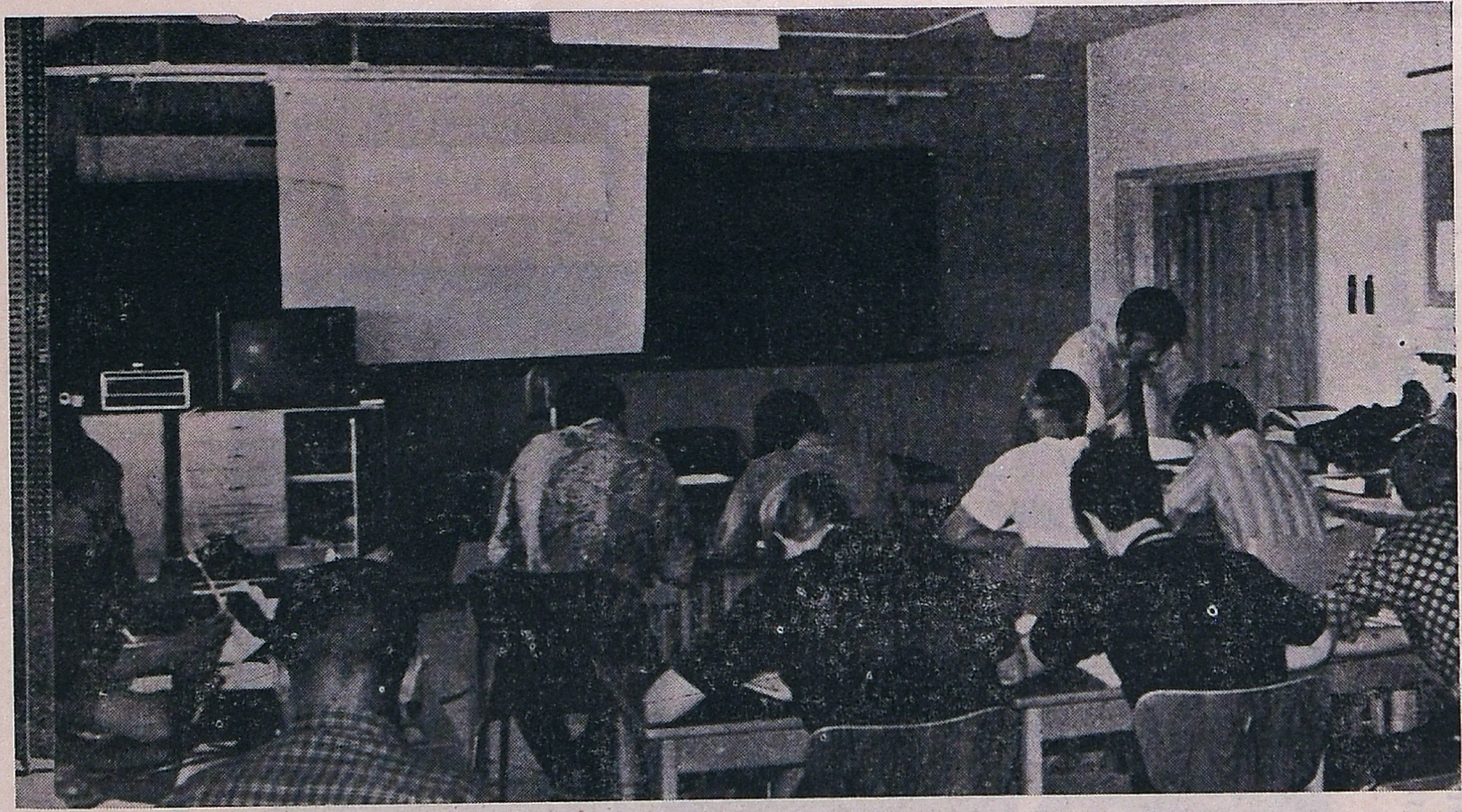
**Teachers Training Course and Forestry Vocational School in Sweden**

On the 5th May, we moved from Stockholm to Vallmotorp—a forestry Vocational School —the venue for the teachers training course. The school is situated by the side of a lake in midst of forests, 6 Km. from Katrineholm (a city) and 120 miles south of Stockholm. This school imparts training to forest-workers who were between 16 to 17 years of age group. The workers join the school after passing IXth class, which is the minimum compulsory education in Sweden. This school where our teaching course was held till the 13th June had a main building, a workshop and an administrative building. The main-building contained lecture halls, dtawing room, dining hall and a modern kitchen, etc. The most important feature that attracted me was the lecture-hall equippd with audiovisual aids like the overhead projector, slide projector, film projector, tape recorder, flannel board, flip charts besides chalk boards and a T.V. set (Please see photograph of the class room showing some of the equipments). These aids have a great stimulating power and provide a lasting imprcssions of the subject matter in students mind, as they greatly activate the sense organs. Our teaching course comprise of Educational phychology, methodology, teaching aids, demonstration lessons and exercise lessons based on up-to-date educational concepts. Teaching in small groups with discursive method and adopting audiovisual aids in India, will go a long way in achieving

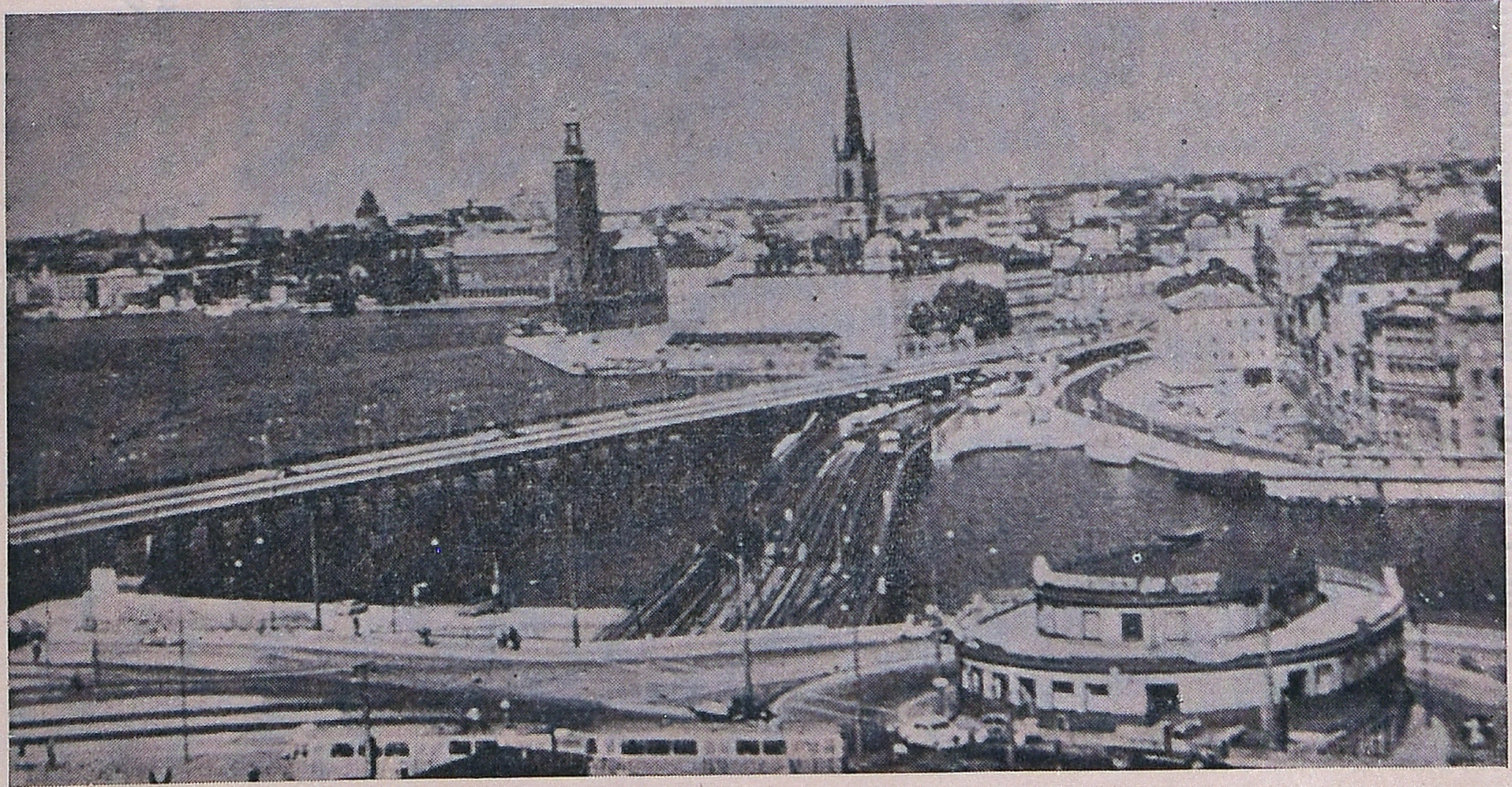
the essence of modern teaching techniques. The training of forestry personnel in Sweden is wholly dependent on specific job requirements. The syllabus carefully takes into the account the mechanization in forestry and courses for working and maintenance of tractors, power chain saws, power bush cutters, etc., take a major share in the training courses, be he a forest worker, technician or a Forest Ranger. Each one of them is required, to be thorough in the working and maintenance of equipments. A forest worker there, is employed only when he has successfully completed the vocational training course for 6 to 9 months. He knows felling by powerchainsaw, alignment of extraction path and most of them the working of tractor besides the planting technique and general forest management. The average earning of a Forest labour is about 2000 S. Kroner (approx. Rs. 3000/-) per month. We visited the Rangers College known as Forest Engineers College in Sweden, at Skinnskatterberg. There were 30 students and the course was for one and a half years. The students were mostly employed either in State Forest Service or in companies or in a County Forest Board. There is no age bar in admission. The students were between 22 years to 48 years old and naturally therefore were mostly married and maintained a Car. The students prior to admission must undergo a vocational training course and must also put in certain years of field working. We met the Principal and the students (a photograph may be seen) and had a guest night with them. The training gives emphasis on road construction, photogrametry and mechanised logging. The training of forestry personnel in Sweden is very much practical and job oriented. Labour is scarce and there is no forest theft as a result of this, most of the forestry personnel are just worker and technicians by themselves, a feature much different from our country where from the forest guard upward every one is a supervisor and an administrator. Unfortunately mechanization in the field of forestry in India is very much feared as a threat to the employment of people living in and around the forests, but gradual and judicous adoption will greatly ease the arduous forest working and improve the efficiency of the labour.

**Forestry in Sweden**

Sweden, Europe's fourth largest country (next to Russia, France and Spain) lies between 55°20′ to 69°4′ N latitude corresponding to a distance of nearly one thousand miles from north to south. Its total area 449,793 Sq. kilometers is approximately one seventh of India (32,68,000 sq. km.). Sweden is exceptionally fortunate in having a luxurient vegetation at such latitudes which are otherwise covered with barren land, tundras and glaciers as in Greenland, Alaska and North America. This is chiefly because of the prevailing west winds and Gulf streams-the huge ocean current that brings the warm water from West Indies to the North Atlantic. The most charactcristic feature of the Swedish landscape is the presence of a large number of lakes, estimated to be nearly one lac. Some are as big as inland seas. Except for the mountains in the North and North west where the highest peaks are over 6000 feet, the Swedish landscape is comparatively flat, a feature of great importance from forestry point



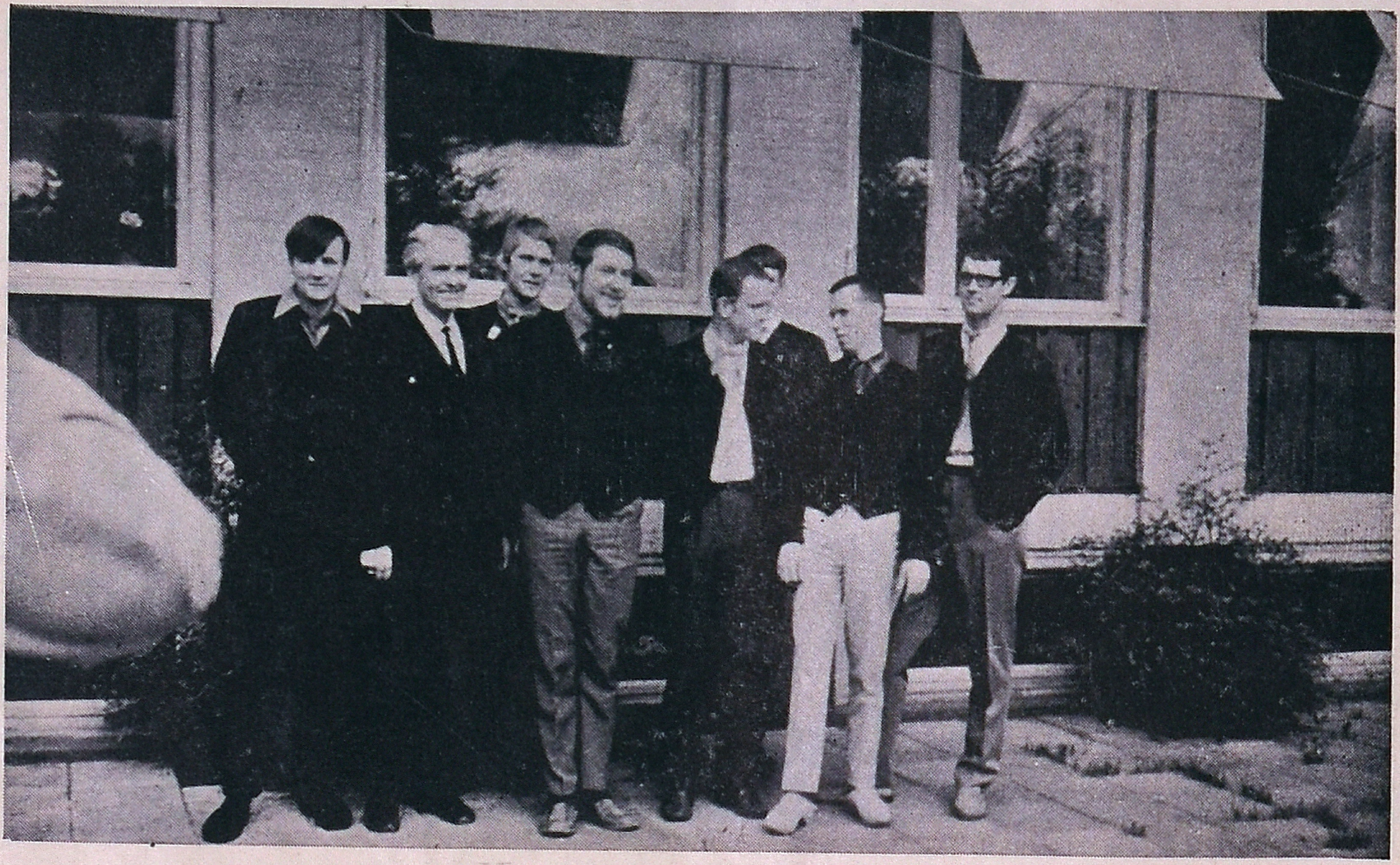
An inside view of the classroom of Vallomotorp—a Forest Vocational Training School (Sweden) equipped with tape-recorder, T.V. Set, overhead projector, flannel board, black board etc.



A glimpse of the capital city—Stockholm.

Planting of spruce seedlings 4 years old by a vocational trainee with a planting crowbar—June '69 (South Sweden).

*Photos—by Author.*



The Principal, second from left with the students of the Rangers College at Skinnskaterberg, Sweden.

*Photo: N.M. Prasad*

Shri R.C. Soni, I.G. (Forests) with the students of N.F.R.C. during his recent visit to the New Hostel.

*Photo: D.K. Parmanik*

of view. The rivers flow from the mountains North-North west to South and East towards the gulf of Bothnia. These rivers have been the natural means of transporting timbers. The forests constitute the Sweden's greatest natural asset and along with iron ore and hydroelectricity have played a leading role in the development of the country into a most modern industrial nation. The forests account for 54% of the total land area and the export of forest products alone account for 30% of the total value of the country's exports. Sweden is one of the world's leading exporters of forest products accounting for 30% of the world's pulp exports, 15% of foreign timber sale and 10% of paper exports. This is an spectacular achivement indeed. It is estimated that two fifths of the forest industry's products are consumed domestically, the other three fifths being shipped abroad. Most of the Europe's timber and pulp requirement is met by Sweden.

**Ownership**—Curiously enough, more than 50% of the forest areas belong to private persons—the farmers and their woodlands are mostly situated in central and Southern Sweden having the highest productivity. The ownership of forests is as below.

| | | |
|---|---|---|
| 1. | Owned by Private persons..... | 51% |
| 2. | Belonging to firm and companies... | 25% |
| 3. | State owned .. | 19% |
| 4. | Belonging to Churches, Municipalities, etc. ...... | 5% |

It is estimated that there are 23,000 small owners who claim the major share of the forests. Most of them are farmers. Combined farming and forestry is thus the most common form in which forestry is conducted in Sweden. As per the above status quo, management may appear rather difficult from our angle but it is redeeming to know that the small holders have joined together and formed associations and there are a National Federation of Swedish Forest Owners and Federation of Swedish Farmers Association. The most recent develop-within the associations has been the sponsoring of co-operatives, which provides professionally trained managers, a pool of permanently employed lumberman, and this co-operation has eliminated the weakness of the small units in management of forests and particularly in the field of mechanization.

**Tree species.** The principal forest species are:

| | | | |
|---|---|---|---|
| Scot's pine (*Pinus sylvestris*) | ... | 40% | of forest area |
| Norway Spruce (*Picea abies*) | ... | 45% | —do— |
| Birch (*Betula verrucosa* and *B. pubescens*) | ... | 13% | —do— |
| Others, are *larch, aspen*, etc., | ... | 2% | —do— |

While *spruce* and *pines* are ideal timber for sawing as well as for pulp, *Birch* and *aspen* are also now being employed for pulp production. This makes Sweden the 3rd largest pulp producer in the world after the United States and Canada. The most remarkable feature of

the Swedish forestry is the density. What-ever forests we visited in the Central and South Sweden, the density was exceptionally good. The growth is reported to be faster in Southern Sweden as compared to Northern for the obvious reasons. The overall mean annual increment is estimated to be 78 million cu. metre i.e. almost 3.5 cu. metre per hectare (India's average mean annual increment is estimated to be 0.5 cu. metre/hectare).

**Regeneration and plantation**

The areas that we visited or came across, had plenty of regeneration, though at places, it is reported to be scanty but certainly not a problem. But still, to introduce *spruce* of better provenance, planting is carried out on mass scale after clear felling the old stand. A great work has been done in the field of genetics and a number of seed orchards have been established for supply of seeds of better provenance and we saw one of the seed orchards and also planting of *spruce*. I was rather surprising to see planting of naked seedlings of *spruce* four years old in the month of June in a clear felled site full of debris. Items such as site clearance, burning of debris, soil working and fencing are not carried out at all. Only alignment is carried out and naked seedlings are put in holes, made at the time of planting by a special type of crowbar and the seedlings consolidated by feet as is shown in the photograph. Such planting technique is successful there. Besides, the following vices are not found in Swedish forestry:

1. Soil erosion.
2. Forest fire
3. Grazing by cattle.
4. Theft of forest produce.

In view of the high density, productivity, limited number of species, good regeneration by artificial and natural means and absence of the above mentioned vices, and above all a much a better topography in most of the areas, forestry in Sweden is much easier an affair than in India. However, there were problems of exploitation earlier during winter in snow, but credit must be given to Swedish foresters since they have made tremendous development in the field of mechanisation during the last ten years. Felling and delimbing are universally carried out by powerchain saw. Transportation is mostly by tractors and big Lorries and also by floating down the rivers. Planting is mostly carried out by manual labour but planting by tractor is also gaining ground. As a result of this, there has been a steep decline in employment of man power from the year 1950 to 1969. Weeding is mostly carried out by a power bush cutter.

We also happened to see KINDA Saw Mill a most modern one situated by the side of lake KISA in South Sweden. In this Saw mill, not only that all the operations from storage to seasoned finished products were mechanised but many operations were automatic. The sorting into diameter classes was carried out by employing photoelectric cell and all recording

into different dia classes was automatic. It may not be out of the place to mention that Sweden is one of the most advanced countries in the world in electronic data computation. As a result of this, a big Saw mill and seasoning plants are managed by a handful of persons. If such is the pace of development, Swedes feel that in near future there will be no man on the land with hand tools and that all forestry operations will be carried out by sitting on a tractor.

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# The Wild Nature

By

H.C. Mishra (1968-70)

The open blue sky, green grassy fields, unfathomable oceans, swift running brooks, and sandy deserts are different agents of Nature. This also includes the charming flora and fauna—the Forest itself. Among all these representatives of nature, Forest is a readily available and most familiar agent.

The pages of ancient history tell us that there was an abundance of forests all over the world. Our ancestors lived in caves. According to the Hindu mythology, Ramachandra, along with his brother and his wife, was banished to the forests for over fourteen years. This indicates that forests were the home for the homeless in the prehistoric ages. We also know that the sages of ancient India lived in the forests for meditation. The calm, quiet and peaceful environment allured them to its lap. In the medieval age, too, many people preferred to dwell in the forests, building their homes in it. The peaceful aspect of the forest has compelled a poet to sing:

"Away away from man and town,
Far away from cap and crown;
But to the lap of Wild-green-Nature,
To mingle with it, and derive pleasure."

* * *

Besides these, the forest was a place to achieve knowledge in the midst of solitude. A thinker was overwhelmed with joy and his thought spontaneously took shape in the following form:—

"A wise finds books in running-brooks;
and tongue in trees."

The wheel of time turned, leaving behind the stone age, and human habitation took the form of villages, away from the forests. Yet man met all his needs from the same and felled the trees ruthlessly, as if the plant community was an enemy to him.

Centuries rolled by. New civilizations developed and the need for forests was great—a real problem to mankind, who had mercilessly wiped away many of the great forests. This had affected not only the need of timber but the cumulative effect was more dangerous to the nation. The deterioration in the fertility of soil, soil erosion, adverse climate, uncheckable floods, scanty rainfall and unavailability of wild life are a few adverse effects to mention. It is very difficult to regain the previous state of forests if the balance of nature is disturbed, even once.

Forests are dumb, but living communities. They can not speak for their own protection. They should, therefore, be protected carefully like any other natural resource in the country.

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**Accident**

A condition in which presence of mind is good, but absence of body better.

—Mark Twain.

* * *

**Accomplish**

Telling lies is a fault in a boy, an art in a lover, an achievement in a bachelor, and second nature in a married woman.

—Helen Rowland.

* * *

**Action**

He that is over cautious will accomplish little. —Schiller.

# Study of Succession Stages of Smokers

By

S.K. Suri

*Lecturer, Indian Forest College, Dehra Dun*

Smoking is prevalent all over the world. Numerous cigarette species are available in the market to meet the diversified demands of the smokers. Every smoker makes his own choice depending upon his degree of smoking perfection, socio-economic factor and the succession stage in which he can be placed. In the following table, an attempt has been made to classify the various cigarette species in accordance with the succession stages of the smokers.

| Succession Stages | Cigarette Species | Smoking Intensity (Number of Cigarettes per day) |
|---|---|---|
| *Primary stage* | Capstan (Medium), Gold flake, Caravan 'A', State Express 555, Abdulla, etc. | 1 to 5 |
| *Capstan stage* | Cheapest of the above species, mostly Capstan (Medium) | Upto 10 |
| *Panama stage* | Panama, Wills, Scissor, Cavander, Berkely, Capstan (Magnum) etc. | Upto 20 |
| | This is Sub-climax stage. Most of the smokers try their best to maintain this stage. | |
| *Pre-climax stage or (Charminar stage)* | Charminar, Bat, Red lamp, National Gold Flake etc. | Over 20 and upto 40. |
| *Climax stage* | Biri, Cigar and Charminar, | Over 40. |
| *Post climax stage* | Hookah, Pipe | No limit. |

*Note*:—This is only a preliminary study. Readers are requested to send their suggestions to the Editor. The above table will be very useful to all for classifying their bosses and making necessary arrangement.

## EDITOR'S SUGGESTION

The above succession under Indian conditions rarely proceeds undisturbed to the climax stage. There are certain interfering factors which retard the progress of succession and this is known as "Retrogression". Some of the important regressing factors are given below:—

(a) *Biotic*—That is, the influence of wife over the smoker.

(b) *Grazing*—Borrowing by friend-parasites.

(c) *Lopping & felling*—Financial position of the smokers and the rise in price of cigarettes.

The extent to which, the succession is pushed back, depends upon the kind, degree and duration of the regressing factors but once, these factors are removed, the inevitable tendency for succession and attainment of the climax stage again manifests itself.

# Book Worms

By

Sudarshan Singh (1968-70)

Modern age, which can be designated as "Scientific Era" has got numerous branches of specified studies based on the different aspects of nature and life of the organisms. Worms which can be technically placed as insects, also have their own branch called Entomology, through which we know the life cycle and behaviour of an insect. Today I am going to describe such an insect which is new and not discovered so far. You may think that it is a type specimen but I don't want to adopt the complicated process of sending the specimen to the Entomologist F.R.I. From the few important field characters given below you will be able to identify the insect very easily.

**Occurrence**

Found all over the world and supposed to be highly evolved insect of recent origin. Since we are not very often allowed to move outside New Forest, I would like to describe a variety of this insect, which is commonly found in New Forest Estate.

**Identification and Damage**

Nature has provided a very good social status for it but this worm is not social. By this habit, it differs from *Termites* and *Bees* which are social insects. Here, in F.R.I. and Colleges it is an acute problem while dealing with the books in library. As it depends upon the books and various printed papers, it creates great trouble to persons dealing with books, printed notes and various other important papers. So many dealing assistants are employed in the Central Library F.R.I. and Students Library N.F.R.C. just to face the problem created by this worm alone.

It destroys valuable books by keeping its body inside, resulting in damage to various pages and figures. It is often found in the rooms of Instructors searching tasty books, notes and loose papers. It is also observed that this worm is very much liked by the Instructors of Forest Colleges and they treat these worms like silk worms and never mind the damage caused by the worm. Most probably it gives buttery vapours of a good flavour which is very much suited to the instructors. This worm can easily be attracted by light trap. You may easily find them by the side of a table lamp even before your P.T. time. At that time it can be seen that it is aggressive to all books notes and loose papers and trying to damage not only each page but each line and word. It may cut some important pages from the book. It avoids gathering and always tries to avail the opportunity alone associated with books and notes, etc.

It makes solution out of books and notes by its destructive organs and with the help of its sucking organ it digests the same. Sometimes it is also found in the botanical garden beneath the trees and bushes playing with beloved books. No rest period or period of dormancy is noticed in the life cycle of this worm and it works whole day and night. No doubt he sleeps for sometime but even at that time it makes itself enclosed with the books.

Considerable damage was also experienced by the honourable Principal N.F.R.C. while inspecting the common room. He noticed that several magazines and papers were missing from the N.F.R.C. Students Common Room. This type of damage is also due to this worm. In the class worm this room is found to be more aggressive and active, even during the interval time.

Giving you some important characters, I am sure that you will be in a position to identify this worm provided you, yourself do not belong to the group. For your information I would like to make it more clear that they are called "RATTU" in Hindi, "Cramming Organisms" in English and "Candidates for Honours" in the glossary of Northern Forest Rangers College.

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# For N.F.R.C. House-Members Only

*Ten Commandmeut for Field Working:*

1. Don't go to work. Slip and sleep or better report sick.
2. If you go, be late; don't carry instruments.
3. When you go, look for a grouse.
4. Never on any account be the leader; stand aside and criticize.
5. During the work, ask yourself, "What am I getting out of this?"
6. Never take initiative. Wait until Instructor arrives; start a bit and stop as he leaves. Your motto should be, 'Work, if you must; shirk, if you can.' काम चोर
7. Never co-operate or otherwise encourage the leader. If you like his working, say nothing about it. Many a leader has been ruined by flattery.
8. Discuss demerits of instruments. Adopt mini-methods and cook results.
9. If house working happens to be harmonious, call it apathy or indifference or lack of zeal; anything under the sun as long as you don't tell the truth.
10. If there are a few zealous workers in the house, make violent and insistent propaganda—obviously they are book-worms or butterers.

(Anonymous)

# Forestry in Kenya

By

P.A. Diro (1968-70)

In the extreme East Africa lies my small country Kenya, a country with diverse physical features and many tribal languages. It takes its position between East longitudes 34° and 41°. The equator bisects the country in more or less two equal halves. The area of Kenya works out to be, nearly one-sixth of India, carrying a population of 10 million people according to the latest census. Almost the entire land is habitable, except for the high mountain peaks, the highest being Mt. Kenya (17040 ft.). In general, Kenya's highlands have an average altitude of 7000 ft .above the mean sea level, and this to some extent has ameliorated the climate above the general expectation.

The varying physical features of the country has given rise to many different types of vegetation. Some of the important ones to mention are; the savana type, tropical semi-evergreen and the mangrove type confined along the coastal plain. Most of these forests present typical equatorial forests with lofty trees and thick shrubby undergrowth. The latter is a great hinderance in exploitation of the indigenous timber species, the situation is further aggravated by the sporadic occurrence of the trees. Thus, one has to traverse a long distance in order to fell only a few trees. The case is therefore different from what I have seen in India where species such as Sal (*Shorea robusta*) and the Himalayan conifers occur mostly in gregarious pure stand. In fact when I first saw the conifers in Chakrata, I was astonished thinking all the time the great human endeavour responsible in raising them in such steep and undulating terrain. In Kenya, the two important timber spp. are the *Podocarpus* spp. and *Juniperus procera* (an African pencil cedar). This cedar is very popular for constructional purposes because of its natural resistance against termite and decay, which has been attributed to its odour. *Podo* is also used extensively for constructional works and furniture making. Both the two species present an acute problem of natural regeneration. This, coupled, with its slow rate of growth necessitated the Kenyan forester to think for an alternative species. This has in recent past led to the introdution of exotics. Amongst the most successful exotics are the *Pinus patula*, *P. ellioti*, *P. radiata* and *Cupressus lustanica*. These species although inferior in quality of timber to the indigenous ones make up the gap by their comparatively fast growth rate and ease of propagation have short periods of exploitation. In fact, *Cupressus lustanica* has almost completely replaced *Podo* in the saw-milling industries. Most of the harvested timber is used in constructional works and furniture making. It is hoped that in near future it would be utilized in paper and pulp and plywood industries.

The forests, both the indigenous and man-made have gone a long way to serve the needs of the people. The supply of timber for building and other constructional purposes and for furniture making is still inadequate. Among the important indigenous timber spp. for construction and furniture making can be mentioned the *Podo* spp.—this is being replaced by *Cupressus lustanica* which is an exotic. For doors, frames, windows and panelling, *Juniperus procera* is widely used. Apart from supplying timber for various purposes the forest department deploys many citizens annually in different categories.

The system of working the forests in Kenya is some form of *taungya* in India. A fixed strength of labour force is maintained in every forest district. They are provided with houses and are allowed to stay as long as they are working in the forests—thus they are more or less permanent at their discretion. These resident workmen are granted 0.8 ha of an area anticipated for planting and for four years, they can raise their agricultural crops along with forest crop. Agricultural crops raised are mostly maize, millet and potatoes. They are also allowed to rear sheep which incidentally produces good quality wool in the highlands. The sheep are not much of a menace to forest crop as they do not browse the plants but to ensure that no damage is done by the sheep, the owners have to employ a watcher to look after them. These workmen renew their agreement deeds every two years. For the welfare of the workmen and their families, the Government provides in every forest district health centres, a marketing centre and school.

This system of working the forests has very much contributed in solving the problems of the landless as they are given first priority in employment of this nature. However, in some forest districts, it has resulted in congestion and has posed administrative problems to the foresters. The most common of the offences punishable by Forest Act is illegal grazing. Fire hazards still remain an unsolved problem and every year several outbreaks of fire cause tremendous damage to the forests. This happens despite all the precautions and alertness of foresters and the people during the period. As per the annual report of the Forest Depart ment of 1967, the timber loss is estimated at £25,935 in 1967 due to fire alone.

Apart from productive value, our forests play a leading role in the protection of wildlife —which is part and parcel of forest. The forest fauna is varied and longed for all over the globe. Unlike India and other European countries, Zoological gardens are not found in the cities of Kenya. Instead, it has been possible to make arrangements to enjoy. Wildlife in their natural habitat in the National Parks. Among the parks, Nairobi National Park is world famous. Here instead of driving far into the forests to see the animals, the animals themselves come to usher you into their abode just by hearing the sound of your Van. Often the lions, zebra and giraffe majestically stride upto the van to lick its tyres—it is just to see to believe! Wildlife now forms a different department under the Ministry of

Natural Resources and most of the personnel to man it are trained at Wildlife College, Mwea (in Tanzania) the only institution of its kind, in East and Central Africa.

For forest publicity, the Kenya Forest Department undertakes a short period of radio programme in the Voice of Kenya. At agricultural shows and exhibitions, the Forest Department also displays their exhibits and pleades for forest protection and development. The Government also observes National Tree-planting-Day in the month of April—as in India I find '*Van Mahotsava*'. The Kenya forester is faced with many problems connected with forestry development. It is hoped that he will time to time emerge out to the peaks above the trees, so that he can have a clear vision of the forests of the future unobscured by the problems of the present.

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If you want to know how old a woman is, ask her sister-in-law.

—E.W. Howe.

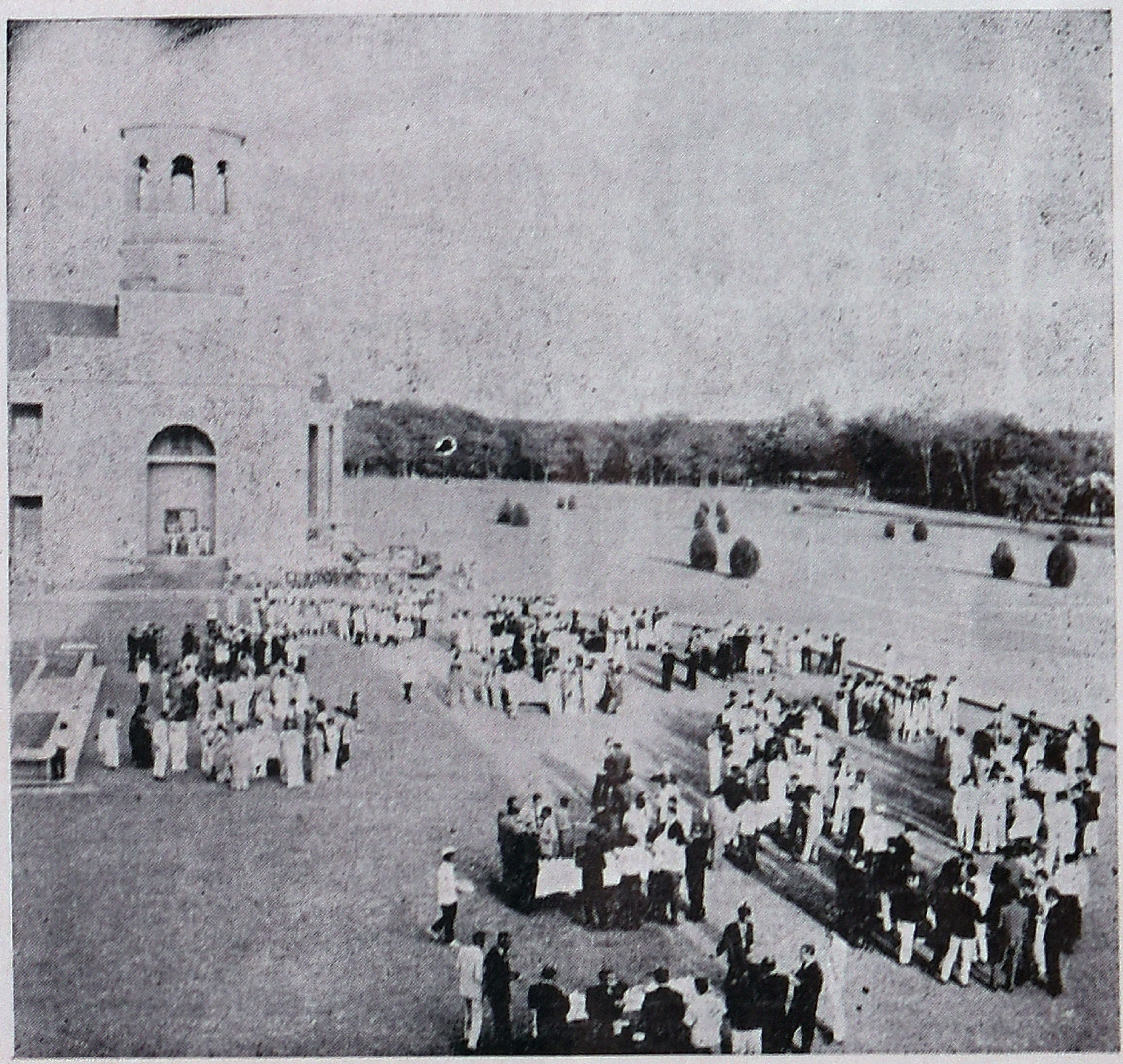
• • •

**Answers**

One of the pleasures of reading old letters is the knowledge that they need no answers.

—G.C. Byron.

The thrilling 'Bhangra' by N.F.R.C. students held on the Association Day (30th March 1969)



Tea on the occasion of Annual Social Gathering held on the 30th March 1969.

'Malaysian Day'—celebrated on the 31st August '69.

Borah's 'Orchestra Party' on the occasion of the Association Day (30th March '69)

# N.F.R.C. Association and its activities 1968-69

The Association conducts all the extra curricular activities of the college, and the student office bearers concerned are responsible for organizing and running thc affairs of the Association under the guidance and general supervision of the members of the Staff who are Ex-officio members of the Association. The Director of Forest Education, Forest Research Institute and Colleges and the Principal, Northern Forest Rangers' Colleges are the Ex-office President and Vice President respectively of the Association. The Association is comprised of the following sections, namely:—

1. The Library and Science Section.
2. The common Room Section.
3. The Sports Section.
4. The College Magazine Section.

A brief account of the working of the Association during the year under report is given below:—

**Election of Office-Bearers:**

*A. General Body-*

The following student office-bearers were elected at the General Body meeting of Association:—

| | | |
|---|---|---|
| (1) Hony-General Secretary | ... | Shri D.V. Kapil |
| (2) Hony-Assistant Secretary | ... | Shri S.P. Tripathy |
| (3) Hony-Treasurers | ... | Shri D. Nath |

*B. Sports Section:*

| | | |
|---|---|---|
| 1. Hony Secretary | ... | Shri G.L. Lokubalasurya |
| 2. Joint Secretary | ... | Shri N.S. Bundela |

*C. Library and Science:—*

| | | |
|---|---|---|
| (1) Hony Secretary | ... | Shri P.K. Jaipuriyar |
| (2) Hony Joint Secretary | ... | Shri S.K. Mishra |

*D. Bommon-Room Section:—*

| | | |
|---|---|---|
| (1) Hony Secretary | ... | Shri S.L. Bhattacharya |
| (2) Hony Jt. Secretary | ... | Shri J.N. Borah |

*E. College Magazine Section.--*

| | | |
|---|---|---|
| (1) Asst. Editor Ebglish Section | ... | Shri C.M. Bawa<br>Shri B.C. Das |
| (2) Asst. Editor (Hindi Section) | ... | Shri S.K. Negi<br>Shri D.P. Dwivedi |

**Budget:**

The budget of the Association as approved by the General Body under the Chairmanship of Vice president of the Association is given below:–

| | | Rs. |
|---|---|---|
| Opening Cash Balance | ... | 6702.44 |
| Anticipated Revenue | ... | 5708.50 |
| Proposed Expenditure | ... | 9876.45 |
| Probable Saving | ... | 2304.47 |

Section-wise break up of expenditure is as under

| Sections | Revenues | Expenditure | Savings |
|---|---|---|---|
| Sports | Rs. 4,211.94 | 3500.00 | 711.94 |
| Common Room | ,, 1,569.90 | 2250.00 | (–) 680.10 |
| Library & Science | ,, 2,309 56 | 1850.00 | 459.56 |
| College Magazinc | ,, 929.44 | 1350.00 | (—) 420.56 |
| Total | Rs. 9020.84 | Rs. 8950.00 | Rs. 70.66 |

To increase this saving, it was suggested by the Vice-President and accepted by all members that a further saving of Rs. 400.00 be effected in Common Room Section and another Rs. 400.00 in Sports Section. This will increase the saving to Rs. 870.66. Written off goods of semi permanent nature will also be auctioned to increase our revenue.

**Library and Science Section:**

The students library being managed under this section was maintained and made use of by the students. The library is well stocked with books on scientific subjects, fiction, poetry, drama, sports and games, Shikar, etc. We receive almost all the leading Newspapers and Magazines too.

A number of very interesting and educative films were sereened during the year. A declamation and debating contests were other highlights. A number of students took part in the contests and the following were adjudged the winner.

*Declamation Contests:—*

Subject—'Character is a guide to Success'

Winners:—1st Prize:—Shri S.C. Sinha (1967-69)

2nd Prize:—Shri G.S. Singh (1967-69)

*Debate:—*

Subject:—In the opinion of the house, 'Development of Agriculture is more important than Forestry under Indian conditions.'

Winners:—1st Prize:—Shri P.A. Diro (1969-70)

2nd Prize:—Shri D.V. Kapil (1967-69).

Cameras with necessary equipment and films were provided to all classes on tours. I am happy to announce that a 'dark room' is under making and the students will soon have the privilege to develop, print and enlarge by themselves their photographs.

**Common Room Section:**

This section handles all the activities of the students in respect to indoor games. Annual Indoor Games Tournaments in various items were held, the winners of which are given below:

| | | | |
|---|---|---|---|
| (1) BADMINTON: | *Single* | Winner—Shri P.S. Darp | |
| | | Runners—V.F.X. Selvaratnam | |
| | *Doubles* | Winner—Shri Selvaratnam & Lokubalasurya | |
| | | Runners—Shri Darp and S. Bhutt | |
| | *Lucky Doubles* | Winners—Shri Selvaratnam & J.N. Borah | |
| | | Runners—Shri Lokubalasurya & B.C. Das | |
| 2. TABLE TENNIS: | *Singles* | Winner —Shri | N.K.R. Collure |
| | | Runner — ,, | T.R. Poudyal |
| | *Doubles* | Winners— ,, | Poudyal & S.T. Bhutia |
| | | Runners— ,, | Lokubalasurya & Collure |
| 3. CARROM: | *Singles* | Winner — ,, | S.T. Bhutia |
| | | Runner — ,, | C. Lalvuana |
| | *Doubles* | Winners— ,, | B. Lama & S.T. Bhutia |
| | | Runners— ,, | G. Laloo & J.N. Borah |
| 4. CHESS: | | Winner — ,, | U. Sathpathy |
| | | Runner — ,, | P. Borthakur |
| 5. BRIDGE: | | Winners— ,, | P.K. Mitra & N.K. Hazra |
| | | Runners— ,, | P.G. Bhattacharjee & D.P. Sarkar |

**Sports Section:**

This section handled all the games and sports activities during the year. Our College teams played a number of friendly matches in Cricket, Football, Volleyball, Basketball, Hockey and Tennis with outside teams. We were however unlucky to win a solitary championship in volleyball only. The results of the F.R.I. and Colleges Annual Tournaments are as under:—

| *Events* | | *Winners* |
|---|---|---|
| Hockey | ... | F.R.I. |
| Football | ... | F.R.I. |
| Volleyball | ... | N.F.R.C. |
| Tennis | | I.F.C |
| Cricket | ... | F.R.I. |

As joint participants at the Dehra Dun District Athletic meet, the F.R I. and Colleges shared the championship trophy in the 'General group'.

We further announce with pleasure that Shri E.L. Lokubalasurya was adjudged the best Athlete of the year of Dehra Dun District.

**The Annual Athletic Meet:**

The annual track and field events of F.R.I. and Colleges were held on the 26th and 27th of March 1969. The performance is indicated below:

| *Events* | *Winner and Team position* |
|---|---|
| 1. High Jump | S. J. Singh I |
| | E.L. Lokubalasurya II |
| 2. Broad Jump | P.A. Diro I |
| | S. J. Singh II |
| 3. Putting the Shot | E.L. Lokubalasurya II |
| 4. 1500 Metres Race | E.L. Lokubalasurya II |
| 5. 110 Metres Hurdles Race | S. Godapola I |
| | S. J. Singh II |
| 6. Javelin Throw | E.L. Lokubalasurya I (New record) |
| | P. Liankhama II |
| 7. 100 Metres Race | P.A. Diro III |
| 8. Discus Throw | G.S. Singh III |
| 9. 200 Metres Race | E.L. Lokubalasurya I |
| | S.L. Bhattacharya III |
| 10. 400 Metres Race | E. Lokubalasurya II |

| | |
|---|---|
| 11. 4 × 100 Metres Relay | N.F.R.C. I |
| 12. Tug of War | N.F.R.C. |
| Team Championship | N.F.R.C. |
| Individual Championship | Shri E.L. Lokubalasurya |

I extend my hearty congratulations to all the winners who had the honour to stand on the victory stand and their combined success entitled the College Team to win the Institutional Championship. Shri E.L. Lokubalasurya deserves a special mention. He won many events and established a new record in Javelin Throw. We once again congratulate him for his excellent performance and wish him the very best in health and a long sports career as he returns to his motherland Ceylon.

*Magazine Section*:—As per the decision made by the general body, it was decided to award the student whose article was found to be the best and as per this, the following students were awarded for their articles under the categories listed below:—

| *Section* | *Name of winner* | *Particulars of articles published in Vol. XX (1967-'68)* |
|---|---|---|
| English prose | Shri D K. Bose (1967-'69) | A battle is lost |
| English Poetry | ,, S.C. Sinha (1967-69) | On the bank of tranquil River |
| Hindi Prose | Shri Sudarsan Singh (1968-70) | देवदार से |
| Hindi Poetry | ,, S.K. Negi (1967-69) | अरण्य नगर |
| Cartoon | ,, S.D. Abhaywardhana | "Entomological Museum" |
| Photographs | ,, None | |

I congratulate the winners and wish for their continued interest in the College Magazine.

**Drama and Entertainment:**

We have a large number of talented members who display their dramatic and musical skill on many occasions such as camp fires on tours, guest nights at headquarters etc. The best was the variety entertainment programme staged in the Convocation Hall of F.R I. & Colleges on the 30th March '69. The programme of Songs, Orchestra, Skits, Quawali and Bhangra was very interesting and entertaining,

*Hobbies*:—Many of the students under the guidance of the principal and Sri D.S. Singh Asst. Instructor took a great interest in making improvised chairs of great ornamental beauty out of rejected stums and log pieces obtained in clearance of the site of the new hostel. I hope this will inspire juniors to contribute such items or paintings etc. which will in course of time be a memorable contribution of the *alma mater*.

P.A. Diro,
General Secretary,
N.F.R.C. Association (1968-'70).

## NORTHERN FOREST RANGERS COLLEGE, DEHRA DUN
## FINAL RESULT OF 1967-69 RANGERS COURSE

### HONOURS CERTIFICATE

| In order of Merit | Name of Student | State |
|---|---|---|
| 1. | D.K. Bose | West Bengal |
| 2. | D.P. Sarkar | West Bengal |
| 3. | M.S. Powar | Madhya Pradesh |
| 4. | J.C· Singhal | Madhya Pradesh |
| 5. | G.P. Mohanty | Orissa |
| 6. | S.L. Bhattacharya | Assam |

### HIGHER STANDARD CERTIFICATE

| In order of Merit | Name of Student | State |
|---|---|---|
| 7. | A.N. Jha | Bihar |
| 8. | M.L. Sharma | J. & K. |
| 9. | C. Parichha | Orissa |
| 10. | S.C. Nayak | Orissa |
| 11. | S.C. Panda | Orissa |
| 12. | P.K. Chakraborty | NEFA |
| 13. | B.N. Singh | U.P. |
| 14. | V.K. Saxena | M.P. |
| 15. | M.N. Pati | Orissa |
| 16. | T.K. Nandi | Orissa |
| 17. | S.K. Sinha | Bihar |
| 18. | P.A. Borah | Assam |
| 19. | C. Pradhan | Orissa |
| 20. | B.L. Bhat | J. & K. |
| 21. | N. Mitra | West Bengal |
| 22. | Mahesh Lal | U.P. |
| 23. | D.V. Kapil | M.P. |
| 24. | P.G. Bhattacharjee | W.Bengal |
| 25. | M.B. Mughal | J. &K. |
| 26. | G.Mahapatra | Orissa |
| 27. | A.K. Misra | Orissa |
| 28. | P.K. Burman | Tripura |
| 29. | K.C. Jena | Orissa |
| 30. | S. Panda | Orissa |
| 31. | A.I.S. Abdali | Assam |
| 32. | R. Nayak | Orissa |
| 33. | D. Tavitayya | Orissa |
| 34. | R.N. Kaul | J. & K. |
| 35. | D. Nath | Assam |
| 36. | A.R. Latto | J. & K. |
| 37. | K. Jit Singh | J. & K. |
| 38. | S.N. Singh | U.P. |
| 39. | N. Maharana | Orissa |
| 40. | M.S. Muzzafar | J. & K. |
| 41. | G.S. Singh | U.P. |
| 42. | J.R. Sahoo | Orissa |
| 43. | Nazir Ahmed | Assam |
| 44. | A.K. Verma | Bihar |
| 45. | B.N. Naik | Orissa |
| 46. | C.M. Bawa | Bihar |
| 47. | P.K. Jaipuriyar | Bihar |
| 48. | D.K. Das | Orissa |
| 49. | A.H. Bukhari | J. &. K. |
| 50. | B.K. Mohanty | Orissa |
| 51. | N. Kar | Orissa |
| 52. | S.K. Negi | Orissa |
| 53. | R.M. Sarkar | M.P. |
| 54. | A.S. Chakraborty | Assam |
| 55. | S.C· Sinha | Bihar |
| 56. | Rajender Singh | Haryana |
| 57. | S.S. Chib | J. & K. |
| 58. | C. Lalvuna | Assam |
| 59. | P. Borthakur | Assam |
| 60. | A.H. Ahanger | J. & K. |
| 61. | R L. Misra | M.P. |
| 62. | J.N. Burahgohain | Assam |
| 63. | A.K. Sen | NEFA |
| 64. | Dayal Das | Assam |
| 65. | Shafi Ahmed | J. & K. |
| 66. | Mohd. Yusaf | J. & K. |
| 67. | Kuldip Raj | J. & K. |
| 68. | S. Bordoloi | Assam |

### FOREIGN STUDENTS
### HIGHER STANDARD CERTIFICATE

| In order of Merit | Name of Student | State |
|---|---|---|
| 1. | S.D. Abayawardana | Ceylon |
| 2. | T.R. Poudyal | Sikkam |
| 3. | E.L. Lokubalasuriya | Ceylon |
| 4. | S.T. Bhutia | Sikkim |
| 5. | B. Lama | Sikkim |
| 6. | A. Louis | Ceylon |
| 7. | S.C. Cintu.y | Sikkim |
| 8. | N.K. Collure | Ceylon |

## PRIZES AWARDED TO THE 1967-69 RANGERS COURSE

| Sl. No. | Name of prize | Name of Winner | State |
|---|---|---|---|
| 1. | **Honours Gold Medal** (To the student who gets the highest total number of marks and Honours) | D.K. Bose | West Bengal |
| 2. | **Fernandez Silver Medal** (For Forest Utilisation) | M.S. Powar | Madhya Pradesh |
| 3. | **Silver Medal for Forestry** | D.K. Bose | West Bengal |
| 4. | **Silver Medal for Forest Engineering** | D.K. Bose | West Bengal |
| 5. | **Silver Medal for Botany** | S.L. Bhattacharyya | Assam |
| 6. | **Mc. Donnel Silver Medal** (To the best student from Punjab, H.P., Haryana or Kashmir) | M.L. Sharma | J. & K. |
| 7. | **William Prothero Thomas Prize** (To the best Practical Forester) | J.C. Singhal | Madhya Pradesh |
| 8. | **Indian Forester Prize** (To the best student who has received no other prize. This will be in shape of "Indian Forester" for a period of one year.) | D.P. Sarkar | West Bengal |
| 9. | **Silver Medal for Range Administration** (To the best student who gets the highest number of marks in Forest Law, Accounts and Procedure) | C Parichha | Orissa |
| 10. | **Silver Cup for Marathon Race** (To the winner of Marathon Race) | E.L. Lokubalasuriya | Ceylon |
| 11. | **Hazarika Memorial Prize** (To the student who does best in the tour examination) | D.K. Bose | West Bengal |
| 12. | **Stracey Prize** (For Wild Life Management) | M.S. Powar | Madhya Pradesh |
| 13. | **Jubillee Prize** (To the best Athlete of the College for the year) | E.L. Lokubalasuriya | Ceylon |

# Appeal

The next issue of the College Magazine is due for publication in May, 1970. Forest Officers (both retired and serving) and present students of the College are cordially invited to contribute articles in English or Hindi on any interesting topic (wild life, shikar, reminiscences, adventures, personal experiences in the profession, anecdotes, etc.) having a bearing on Forestry, and send the same to the Chief Editor, N.F.R.C., P.O. New Forest, Dehra Dun (U.P.) so as to reach him by 31st March, 1970. The Editorial Board will further appreciate if this is given a wide publicity by the readers.

**FORM IV**

(See Rule 8)

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**I, N.M. Prasad, hereby declare that the particulars given above are true to the best of my knowledge and belief.**

N.M. Prasad,
*Editor & Publisher.*

**Dated : 18th December, 1968.**

# नॉरदर्न फॉरेस्ट रेन्जर्स कॉलेज पत्रिका

देहरादून

१९६८-६९

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## तुझ पर न्योछावर

सुदर्शनसिंह

(१९६८-७० सत्र)

हे माँ, सबल बन-पाल हम, निज लक्ष्य पूरा कर रहे हैं,
प्रकृति को देते सजा ये, वृक्ष रोपण चल रहे हैं।
वन क्षेत्र में इस वृद्धि के, शुभ दृश्य हैं तुझ पर न्योछावर,
स्नेह से स्वीकार कर माँ, हरितिमा तुझ पर न्योछावर ।।१।।

विटप लतिका पुष्प हैं, ये घास फैली अंक में,
अमृत भरा रस ग्रहण कर, औषधियाँ भी उगतीं बनों में।
उनको सँवारे जा रहे हम, सफलता तुझ पर न्योछावर,
स्नेह से स्वीकार कर माँ, हरितिमा तुझ पर न्योछावर ।।२।।

बन जन्तुओं की वृद्धि हो, निर्दय न हो कोई कभी,
सघन हो उपलब्धता, यह ध्येय है तत्पर सभी।
स्वच्छन्द हो लघु प्राणियों का, विचरना तुझ पर न्योछावर,
स्नेह से स्वीकार कर माँ, हरितिमा तुझ पर न्योछावर ।।३।।

तेरी चरण-धूलि लगा, आशीष पाना चाहते हैं,
देश-सेवा लक्ष्य है, अद्वितीय होना चाहते हैं।
ममतामयी वरदायिनी माँ, है तुम्हें सब कुछ न्योछावर,
स्नेह से स्वीकार कर माँ, हरितिमा तुझ पर न्योछावर ।।४।।

# हमारा राष्ट्रीय पशु "सिंह"

पी०एच० उत्तमसिंह, भा०व० सेवा
प्राध्यापक महाविद्यालय

भारतीय वन्य जन्तु परिषद द्वारा "सिंह" को राष्ट्रीय पशु घोषित किया जाना न केवल प्रकृति प्रेमियों के लिए सन्तोषप्रद निर्णय रहा, बल्कि प्रत्येक दूरदर्शी भारतवासी ने इस प्रगतिशील कदम का हार्दिक स्वागत किया। इस निर्णय पर व्यंगात्मक प्रतिक्रिया व्यक्त करते हुए नवभारत टाइम्स ने अपने १३ जुलाई १९६९ के पत्र में अपनी संकीर्णता और अज्ञानता का परिचय देते हुए सिंह और गधे की हास्यास्यपद तुलना की, परन्तु इन बातों में सत्य छिपा लेने की क्षमता नहीं है।

सिंह शक्ति, निर्भीकता, शौर्य और भद्रता का प्रतीक हैं। इसकी उपयोगिता और महत्त्व को हम भारतवासी वैदिक काल से ही समझते आ रहे हैं। स्वाभिमानी व प्रतापी राजा अपने शक्ति परीक्षण हेतु वनों में सिंह का शिकार खेलने जाया करते थे। इस शिकार का लक्ष्य इस पशु का विनाश करना नहीं, अपितु कानन राजा सिंह से अपना पराक्रम दिखाना हुआ करता था। शिकारगाहों और वनों को सुव्यवस्थित सुरक्षा का प्रबन्ध रहता और नियम भंग करने वालों को मृत्यु दण्ड तक भी दिये जाने में संकोच नहीं किया जाता था। अतः उस युग में इस पशु को एक प्रतिद्वन्दी राजा के समान, सम्मान प्राप्त था। महापराक्रमी वीर बालक भरत, जिसके नाम से ही अपने देश को "भारत" की संज्ञा मिली, ने सिंह के बच्चों के साथ खेलकर अपने अपूर्व शौर्य का प्रदर्शन किया और समाज ने भरत को महानतम राजा माना। यह उस राजकुमार के साथ ही सिंह के लिए महत्ता की बात है, जो शक्तिशाली पुरुषों के पुरुषत्व का मापदण्ड रहा है। सतयुगी कथाओं के आधार पर यह भी उल्लेख मिलता है कि भगवान को भी दुष्ट-दमन हेतु, नरसिंह रूप धारण करना पड़ा था, जिस रूप की आज भी सनातन धर्म के लोग पूजा करते हैं। इस विश्वास में भी इस महान पशु की गरिमा व शौर्य गाथा निहित है। न्यायप्रिय महान सम्राट अशोक ने भगवान बुद्ध के अनुयायी के रूप में अहिंसा का प्रचार करते समय पत्थर की लाटों में सिंह को चित्रित कर इसकी महानता को स्वीकार किया और हमारी अखण्ड भारतीय प्रभुसत्ता के रूप में आज भी यह चिह्न सर्वमान्य व गौरवपूर्ण चिह्न है। यह थी संक्षेप में सिंह को आज से पहले की मिली मान्यतायें, जो आज भी हमें प्रेरणा देकर सचेत करती रहती हैं।

परन्तु क्रूर मानव की निर्दयता ने आज, शक्ति की देवी दुर्गा के वाहन, इस पराक्रमी पशु को इस स्थिति में ला दिया है कि वह स्वयं अपनी रक्षा कर पाने में असमर्थ सा हो रहा है। जनसंख्या की वृद्धि (मानवीय) व वन्य जन्तुओं को हानिकारक समझने की गलत प्रवृत्ति ने वन-जन्तुओं के विनाश को प्रोत्साहन दिया। अपनी विशिष्ट उपयोगिता के कारण शिकारियों का ध्यान सिंह पर केन्द्रित हुआ और लगातार अनुचित व निर्दयता पूर्वक शिकार के कारण इसकी संख्या इतनी कम हो गयी जैसे अब यह पशु जाति समाप्त ही हो जाने वाली हो। यही

कारण था कि उत्तरी व मध्यभारत तथा नर्वदा तक पाया जाने वाला यह पशु केवल गिर के जंगलों तक ही केन्द्रित होकर रह सका। सन् १८८० में की गयी गणना के अनुसार इसकी संख्या मात्र दर्जन भर रह गयी थी और ऐसा प्रतीत हुआ था कि यह पशु जाति समाप्त हो जायेगी, परन्तु नवाब जौनागढ़ तथा अन्य प्रकृति प्रेमियों के अथक प्रयासों के फलस्वरूप इसकी संख्या २९० के लगभग हो सकी है। वन्य-जन्तुओं की सुरक्षा हेतु ब्रिटिश सरकार द्वारा सन् १८८७ में "पक्षियों व शिकार हेतु विधान" तथा सन् १९१२ में "वन्य जन्तु व पशु रक्षा विधान" बनाये गये जिसका कुछ असर अवश्य हुआ, फिर भी इस महान पशु को बचा पाने में ये विधान सहायक न हो सके। सन् १९५४ में भारतीय वन्य जन्तु परिषद की स्थापना इस क्षेत्र में स्वतन्त्र भारत की अवधि का सबसे महत्वपूर्ण कदम था। इस परिषद की प्रेरणा के ही कारण "राष्ट्रीय वन्य जन्तु उद्यान" व "गेम सेन्क्चुरी" आदि की स्थापना हुई और समाज में वन्य जन्तुओं के प्रति सहानुभूति का संचार हुआ। इन सब प्रयासों के बावजूद भी हम इस महान पशु को वांछित सुरक्षा देने में सफल न हो सके, परन्तु अब यह विश्वास किया जा सकता है कि हम इस राष्ट्रीय पशु को सही सम्मान दे सकेंगे।

यदि हम इस पशु के जीवन यापन पर विचार करें तो यह भ्रम सरलता से दूर किया जा सकता है, जिसके कारण हम इसे घातक व हानिकारक समझते हैं। यह मांसभक्षी जीव है और सुव्यवस्थित आदर्श, सामाजिक जीवन व्यतीत करता है। इसके जीवन में राजसी ठाट कूट-कूटकर भरी है। यही कारण है कि इसे पशुराज, मृगराज, काननराज, जंगल का राजा आदि उपमाओं से सुशोभित किया गया है। ऐश्वर्य भोगी राजा के रूप में यह सामान्यतः तीन रानियों के रनिवास की आवश्यकता समझता है। इसके परिवार में ६ से २० सदस्य हुआ करते हैं। वनराज के रूप में यह अपना शासित क्षेत्र स्थापित करता है जिसके भीतर अपने समान दूसरे सिंह को नहीं प्रवेश करने देता और इसी प्रवृत्ति पर एक उक्ति प्रचलित है–"एक जंगल में एक ही शेर रह सकता है।" यह इस क्षेत्र में अपना शिकार करने निकला करता है। शिकार की कमी के कारण या अपनी प्रवृत्ति के कारण यह अपने शासित क्षेत्र से बाहर भी एक निश्चित सीमा तक जाया करता है जिसे विचरण सीमा या गृह सीमा कहा जाता है। यह स्वभाव का इतना निर्भीक होता है कि विचरण करते समय सदैव मुख्य मार्ग से चलता है, जो इस बात का प्रतीक है कि इस पराक्रमी वनराज को भय का लेशमात्र भी व्याप्त नहीं। इसकी भयंकर गर्जना व हुँकार से सारा वन काँप उठता है, पशु भागने लगते हैं और मानव का शक्तिशाली अस्तित्व भी भयभीत हो जाता है। इतना होते हुए भी यह पशु छल व कपट न जानने के कारण शिकारियों की चतुराई का आसानी से शिकार बन जाता है। शिकारगाहों और मचानों पर छिपे, आधुनिक घातक हथियारों से सुसज्जित शिकारी इस पशु को मार डालने में सफल हो जाते हैं। मानव की इस वीभत्स विजय को विश्वासघात तथा कपट की संज्ञा दी जा सकती है।

इस गलत धारणा को कि सिंह मानव भक्षी है दूर करना नितान्त आवश्यक है। यह पशु मांस भक्षी होते हुए भी स्वभाव से मानव भक्षी लेशमात्र भी नहीं है। प्रकृति ने वनस्पति भक्षी व मांस भक्षी पशुओं की संख्या में एक सुन्दर समन्वय रखा है, और जब भी मानव अपनी अज्ञानता वश इस सन्तुलन को बिगाड़ने की कोशिश करता है तब-तब उसे दुष्परिणाम भोगने पड़ते हैं। उदाहरण के लिए यदि हम सिंह के भोज्य जीवों को जानने की कोशिश करें तो पता चलता है कि मुख्यतः जंगली सूअर, मृग व हरिण, जंगली भैंस व अन्य पालतू जानवर इसके भोजन हो सकते हैं। यदि सिंह के शासित क्षेत्र में हरिण या जंगली सूअर आदि जानवरों की संख्या पर्याप्त है तो इसे

पालतू जानवरों पर आक्रमण करने की आवश्यकता नहीं होगी। किसी कारणवश यदि इन शाकाहारी जानवरों की संख्या शिकार द्वारा कम कर दी गयी तो अपने भोजन की खोज में सिंह को पालतू जानवरों का शिकार करना ही होगा। यह स्थिति यदि बहुत जटिल रही तो यह पशु मानव भक्षी भी हो जाता है। मानव भक्षी होने का दूसरा कारण है, शिकारी द्वारा घायल किया हुआ सिंह जो गोली लगने के बाद भी मारा न जा सका हो। ऐसा पशु एक तरफ तो अपने शिकार पकड़ने में असमर्थ सा रहता है. दूसरी ओर वह मानव से प्रतिशोध चाहता है और इन दोनों ही कारणों की सम्मिलित प्रतिक्रिया के फलस्वरूप वह मानव भक्षी हो जाता है। इन परिस्थितियों के ठीक विपरीत यदि शाकाहारी पशुओं की संख्या ज्यादा हो जाती है तो वनों के आसपास कृषि क्षेत्रों को बहुत नुकसान पहुँचता है। इन शाकाहारी पशुओं की वृद्धि का मात्र कारण है मांसभक्षी पशुओं का मानव द्वारा विनाश करना। विशेषकर सिंह की कीमती खाल शिकारियों के आकर्षण का कारण होती है और वे अपने स्वार्थ हेतु अपने देश तथा प्राकृतिक संतुलन का विनाश करने में आत्म-ग्लानि का अनुभव नहीं करते

अतः प्राकृतिक सौन्दर्य व सन्तुलन स्थापित रखने, शौर्य एवं पराक्रम के प्रतीक इस राष्ट्रीय पशु की जीवन रक्षा करने व भारतीय संस्कृति की रक्षा हेतु "अहिंसा परमो धर्मः" का आचरण करना ही होगा। किसी पशु या पक्षी का सम्बन्ध राष्ट्र से जोड़ देना उतना महत्त्वपूर्ण नहीं जितना कि हमारी प्रत्योत्तर में मिलने वाली आस्था का है। इस महान पशु के प्रति भी हमें अपनी मानवता का परिचय देकर अपनी देशभक्ति का प्रमाण देना होगा, जिससे यह जाति न केवल अजायबघरों, राष्ट्रीय पार्कों व गेम सेंक्चुरी में ही केन्द्रित रहे बल्कि अपने प्राकृतिक जीवन क्षेत्र जंगलों में स्वतन्त्र विचरण के अधिकार का उपयोग कर सकें। भारत के प्रत्येक नागरिक को वन विभाग के इस महान कार्य के प्रति कृतज्ञता भी प्रकट करनी चाहिए जिसके सराहनीय प्रयासों द्वारा इस पशु जाति को काल के मुँह से बचाया जा सका। आशा ही नहीं विश्वास है कि प्रत्येक भारतवासी इस राष्ट्रीय पशु को समुचित सम्मान देकर इसकी सुरक्षा में अपना योगदान देगा।

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## रुबाई

हर जवानी की लहर आयी दगा देने को,
हुस्न का नूर जो बचपन है उसे लेने को,
चार दिन बाद वह चुपचाप चली जायेगी—
साथ लाई है बुढ़ापे को थमा देने को।

--डी०आर० सिंघल, १९६६-'६८ सत्र

## NORTHERN FOREST RANGERS COLLEGE

Winners of F. R. I. & Colleges

**VOLLEY BALL, 1968-1969**

On Chairs (L to R)—Sarvashri Kunwar Singh (P.T.I., New Forest), D.S. Singh (O/c Sports, City Sec.), S.K. Sinha (Captain), K.V. Kakkar (Principal), N. Moharana (Jt. Capt.), T. Mehta (O/c Sports, New Forest), Bhagwan Singh (P.T.I. City Sec.).

Standing (L to R)—Sarvashri S. P. Tripathy, E. L. Lokubalasuriya, B. C. Das, K.A. Malik, D.N. Das, T.K. Nandi.

NORTHERN FOREST RANGERS COLLEGE

Winners of F.R.I. & Colleges

**TUG OF WAR, 1968—1969**

On Chairs (L to R)—Sarvashri Kunwar Singh (P.T.I. New Forest), T. Mehta (O/c Sports, New Forest) D.S. Singh (O/c Sports, City Section) Rajinder Singh (Capt.) K.V. Kakkar (Principal), G.S. Singh, Bhagwan Singh (P.T.I. City Section).

Standing (L to R)—Sarvashri N. Kar, H. Singh, V.K. Kaushal, Jason Kitui, K. Malik, P. Borthakur, O.P. Kaushik, M.L. Sharma, N. Moharana, B.N. Singh.

# अपकार मिलता आ रहा

नरेन्द्र नारायणसिंह
१९६८:७० सत्र

उपकार का बदला मुझे, अपकार मिलता आ रहा।।
नीर का प्रेमी हूं मैं, जब खींचता हूं पास अपने,
सुख कामना की श्वांस ले, कुछ सोचता आशा के सपने।
यह नीर भी मेरा न बन, सूरज से खिचता जा रहा,
उपकार का बदला मुझे, अपकार मिलता आ रहा।।१।।

मानव की सेवा में लगा हूं, सतत अपनी छाँह दे,
अमृत सरीखे फल लुटा, हँसता हूं निज की आह दे।
आभार उस पर है नहीं, जड़ काटता जो आ रहा,
उपकार का बदला मुझे, अपकार मिलता आ रहा।।२।।

हाथ मैं अपना बढ़ा, वन जन्तुओं को चूमता हूं,
सर्वस्व मैं अपना लुटा, उनकी खुशी में झूमता हूं।
फिर भी मुझे परिवार उनका, नाश करता आ रहा,
उपकार का बदला मुझे, अपकार मिलता आ रहा।।३।।

मैंने प्रकृति से मेल रख, निज को सँवारा हर्ष में,
छायी धरा पर हरितिमा, शुभ वसन्ती वर्ष में।
पर ओस, कोहरा, बर्फ का, मुझ पर थपेड़ा आ रहा,
उपकार का बदला मुझे, अपकार मिलता आ रहा।।४।।

कष्ट मानव मात्र से, क्यों मूर्ख सा व्यवहार करता,
बुद्धि विकसित मिली जिसको, क्यों नहीं उपयोग करता।
आभार वह सबका भुला, दुष्कर्म करता आ रहा,
उपकार का बदला मुझे, अपकार मिलता आ रहा।।५।।

अब सत्य तुम मुझसे सुनो, निःस्वार्थ मेरा त्याग यह,
बदला न मैं कुछ चाहता, अपनी व्यथा सहता स्वतः,
प्रेम का बदला सदा, दुख दर्द मिलता आ रहा,
उपकार का बदला मुझे अपकार मिलता आ रहा।।६।।

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# साहित्य में वृक्ष वर्णन

लक्ष्मीकिशोर शर्मा
(१९६९-७१ सत्र)

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मानव जीवन से वृक्षों का अपरिहार्य सम्बन्ध है। वृक्ष रहित सृष्टि में तो वह अपने जीवन की कल्पना भी नहीं कर सकता। आदिकाल में मानव ने जब सर्वप्रथम अपनी आँखें खोली तो उसने अपने आपको सब प्रकार से वृक्षों के ही आश्रित पाया—लोनी लतायें उसकी शय्या, पत्ते उसके बिछौने तथा फल उसकी क्षुधा निवृत्ति के साधन बने। आज के विकासमान वैज्ञानिक युग में भी उसका सम्बन्ध वृक्षों से अनिवार्य रूप से बना हुआ है, फिर उसके द्वारा रचित साहित्य में वृक्षों का दिग्दर्शन न हो, यह असम्भव है। काव्य में आलम्बन के अतिरिक्त प्रकृति के उद्दीपन तथा उपदेशात्मक रूप में, विशेषकर उपमा अलंकार के माध्यम स्वरूप वृक्षों का चित्रण मिलता है।

कवि 'देव' के शब्दों में--

सुनि के धुनि चातक मोरन की चहुँ ओर नि कोकिल कूकनि सों
अनुराग भरे हरि बागन में सखि रागत राग अचूकनि सों
कवि देव घटा उनई जू नई, बनभूमि भई दल दूकनि सों
रंगराती हरी हहराती लता झुकि जाती समीर के झोंकन सों

देखिए वनभूमि के माध्यम से श्रृङ्गार के उद्दीपन का कैसा अनूठा और हृदयगाही चित्रण है।

कवि कालीदास कृत 'शकुन्तला नाटक' के सफल अनुवादक 'राजा लक्ष्मणसिंह' ने तो यहाँ तक सिद्ध किया है कि वृक्ष या पौधे अपने जन्मजात स्वाभाविक गुण को कभी नहीं छोड़ सकते—यदि छोड़ते हैं तो समझना चाहिए कि कोई अन्य विकृति है।

राजा दुष्यन्त के द्वारा शकुन्तला को व्याकुल देखने पर नायक ग्रीष्म व काम की पीड़ा का अनुमान लगाता है--

लगि लेप उशीर उरोज रह्यो कर एक सढ़ील मृनाल बला।
कछु पीड़ित सो तन है प्रिय को कमनीय तरु जिमि चंद कला।।
मकरध्वज की अरु ग्रीष्म की दुहु ताप कहावति तुल्य बला।
पर ग्रीष्म त्रास करे न कहूं मन भावन ऐसी नई अबला।।

खश और कमल का स्वाभाविक गुण ठण्ड पहुंचाना है परन्तु इनका उपचार भी इसे शीतलता प्रदान न कर सका तो निश्चय ही यह (शकुन्तला) ग्रीष्म पीड़ित न होकर काम पीड़ित है।

श्रीकृष्ण ने भी अपने जीवन की अनेक लीलायें वृन्दाबन के कुञ्जों, वनों, उपवनों तथा लताओं में की, वृन्दावन के सघन कुंज उनकी प्रेमलीला के आश्रय स्थल बने, कदम्ब के वृक्ष से तो उनके जीवन का अटूट सम्बन्ध रहा है।

एक बार कृष्ण को सब जगह ढूँढ़ा, नहीं मिले, मिले तो कहाँ मिले ?

'मतिराम' के शब्दों में—

पैठ्यो दुर्यो वह कुंज कुटीर में,
बैठ्यो पलोटत राधिका पाँयन।

वृक्ष अपनी प्रकृति नहीं छोड़ते, 'कबीर' के शब्दों में—

करे बुराई सब चहे, कैसे पावे कोय।
बोवें पेड़ बबूल का, आम कहाँ ते होय।।

किन्तु यह भी सत्य है कि वृक्ष का उपयोग उसकी प्रकृति के अनुकूल ही करना चाहिए अन्यथा भयंकर परिणाम निकल सकता है।

'तुलसीदास' के शब्दों में—

अति संघर्षण करे जो कोई।
अनल प्रकट चंदन तँह होई।।

देखिए चन्दन इतना शीतल होता है किन्तु यदि उसे सूखा ही घिसा जाय तो अग्नि उत्पन्न होने लगती है। उपदेशात्मक रूप में भी वृक्षों का वर्णन स्थान-स्थान पर मिलता है।

'तुलसीदास' के शब्दों में—

फूले फले न बेंत यदपि सुधा सींचो जलद।
मूरख हृदय न चेत जो गुरू मिलहिं विरंचि सम।।

* * * *

हरित भूमि तृण संकुलित समुझि परें नहीं पंथ।
जिमि पाखण्ड विवाद ते लुप्त होय सद्ग्रन्थ।।

* * * *

नव पल्लव भे विटप अनेका।
साधु के मन जस होत विवेका।।

परोपकार के उदाहरण के रूप में भी वृक्षों का कई स्थानों पर सफल चित्रण हुआ है जो मानव के स्वार्थी मन को भी कुछ समय के लिए निःस्वार्थ और परोपकार की भावना से ओत-प्रोत करने में सक्षम है।

पर उपकार त्याग का सच्चा तरुवर पाठ पढ़ाते हैं।
दण्ड प्रहार आम पर करके सुन्दर फल सब पाते हैं।।

एक स्थान पर वृक्षों की तुलना सन्तों के स्वभाव से की है

तरुवर सरवर संतजन चौथो बरषण मेह।
परमारथ रे कारणे चारों धारी देह।।

बुद्धिमान व्यक्ति को धन का संचय वृक्षों की परोपकारी भावना लेकर करना चाहिए।

'रहीम' के शब्दों में—

तरुवर फल नहीं खात है सरवर पिय हि न पान।
कह रहीम पर काज हित संपति सँचै ही सुजान।।

वृक्षों की प्रकृति इतनी उत्तम है कि उस पर किसी अन्य का प्रभाव पड़ ही नहीं सकता।

'रहीम' के शब्दों में—

जो रहीम उत्तम प्रकृति का करि सकत कुसंग।
चन्दन विष व्यापत नहीं लपटे रहत भुजंग।।

कहीं-कहीं अधिक दुःख में वृक्षों पर मानवीकरण का आरोप भी आत्मीयता के भाव में हो गया है।

सीताहरण होने के पश्चात भगवान श्री रामचन्द्र व्याकुल होकर पंचवटी के वृक्षों से पूछते हैं।

'तुलसीदास' के शब्दों में—

खग मृग परिजन तरुवर श्रेनी।
तुव देखी सीता मृग नयनी।।

अशोक वन में सीता भी निवेदन करती है।

तुलसीदास के शब्दों में—

विनय सुनहु मम विटप अशोका।
सत्य नाम करु हरु मम शोका।।

भगवान पर विश्वास रखने हेतु अमरबेल के रूप में 'रहीम' ने कितना सजीव और सत्य चित्रण किया है—

अमर बेलि बिन मूल की प्रति पालत है ताहि।
रहिमन ऐसे प्रभु हि तजि तू खोजत है काहि।।

प्रकृति के चतुर चितेरे 'श्री सुमित्रानन्दन पन्त' तो वृक्षों की मधुर छाया को छोड़कर किसी भी वस्तु को नहीं चाहते—

छोड़ द्रुमों की मृदु छाया तोड़ प्रकृति से भी माया,
बाले! तेरे केश जाल में कैसे उलझादूँ लोचन।

कई वृक्ष तो ऐसे हैं जिनका पूजन किया जाता है और उससे अभिष्ट फल की आकाँक्षा रखी जाती है जैसे बड़, पीपल, आँवला, तुलसी आदि।

भगवान 'श्रीकृष्ण' ने गीता में स्पष्ट कहा है—

अश्वत्थं सर्व वृक्षाणाम्, देवर्षिणाम् च नारदः।

वास्तव में यदि दैनिक जीवन के उपयोग में हम वृक्षों का उपयोग देखें तो हमें ज्ञात होगा कि वृक्षों के बिना हम जीवन की कल्पना ही नहीं कर सकते।

'श्री गौतम' के शब्दों में—

वृक्ष हरें सब दुक्ख, वृक्ष बहु सुख उपजावें।  
वृक्ष करें जल वृष्टि, वृक्ष सब अन्न उगावें॥  
वृक्ष औषधि जनक, वृक्ष भोजन का दाता।  
वृक्ष जीव का गेह, राष्ट्र का भाग्य विधाता॥  
भू संरक्षण वृक्ष से, हरे मरुस्थल वृक्ष ही।  
वृक्ष प्रकृति आधार, अर्थ का स्रोत वृक्ष ही॥

अतएव हमें चाहिए कि हम वन सम्पदा की अधिकाधिक वृद्धि करें और उसकी सुरक्षा की ओर विशेष रूप से ध्यान दें जिससे हमें आये दिन की गहन समस्याओं जैसे अकाल, बाढ़, मरुस्थल, अनावृष्टि, अतिवृष्टि की भयंकर दुर्घटनाओं से छुटकारा मिल सके।

'श्री गौतम' के शब्दों में—

वृक्षारोहण और पोषण मानवचित धर्म है।  
वृक्ष पूजन और सिंचन भी अनूठा कर्म है॥  
प्रथम मानव की रही आवास ही वृक्षावलि।  
फल फूल क्या निज अंक भी देती रही वन-स्थली॥

'श्री गौतम' का वृक्षों के सम्बन्ध में यह निष्कर्ष कितना सारपूर्ण एवं सत्य है—

वृक्ष है जीवन का आधार।  
वृक्ष है मानव का श्रृङ्गार॥  
वृक्ष हैं मरुभूमि का काल।  
वृक्ष ही है जग का प्रतिपाल॥

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बुद्धिमान व्यक्ति को धन का संचय वृक्षों की परोपकारी भावना लेकर करना चाहिए।

'रहीम' के शब्दों में—

तरुवर फल नहीं खात है सरवर पिय हि न पान।
कह रहीम पर काज हित संपति सँचै ही सुजान।।

वृक्षों की प्रकृति इतनी उत्तम है कि उस पर किसी अन्य का प्रभाव पड़ ही नहीं सकता।

'रहीम' के शब्दों में—

जो रहीम उत्तम प्रकृति का करि सकत कुसंग।
चन्दन विष व्यापत नहीं लपटे रहत भुजंग।।

कहीं-कहीं अधिक दुःख में वृक्षों पर मानवीकरण का आरोप भी आत्मीयता के भाव में हो गया है।

सीताहरण होने के पश्चात भगवान श्री रामचन्द्र व्याकुल होकर पंचवटी के वृक्षों से पूछते हैं।

'तुलसीदास' के शब्दों में—

खग मृग परिजन तरुवर श्रेनी।
तुव देखी सीता मृग नयनी।।

अशोक वन में सीता भी निवेदन करती है।

तुलसीदास के शब्दों में—

विनय सुनहु मम विटप अशोका।
सत्य नाम करु हरु मम शोका।।

भगवान पर विश्वास रखने हेतु अमरबेल के रूप में 'रहीम' ने कितना सजीव और सत्य चित्रण किया है—

अमर बेलि बिन मूल की प्रति पालत है ताहि।
रहिमन ऐसे प्रभु हि तजि तू खोजत है काहि।

प्रकृति के चतुर चितेरे 'श्री सुमित्रानन्दन पन्त' तो वृक्षों की मधुर छाया को छोड़कर किसी भी वस्तु को नहीं चाहते—

छोड़ द्रुमों की मृदु छाया तोड़ प्रकृति से भी माया,
बाले! तेरे केश जाल में कैसे उलझादूँ लोचन।

कई वृक्ष तो ऐसे हैं जिनका पूजन किया जाता हैं और उससे अभिष्ट फल की आकाँक्षा रखी जाती है जैसे बड़, पीपल, आँवला, तुलसी आदि।

भगवान 'श्रीकृष्ण' ने गीता में स्पष्ट कहा है—
अश्वत्थं सर्व वृक्षाणाम्, देवर्षिणाम् च नारदः।

वास्तव में यदि दैनिक जीवन के उपयोग में हम वृक्षों का उपयोग देखें तो हमें ज्ञात होगा कि वृक्षों के बिना हम जीवन की कल्पना ही नहीं कर सकते।

'श्री गौतम' के शब्दों में—

वृक्ष हरें सब दुक्ख, वृक्ष बहु सुख उपजावें।
वृक्ष करें जल वृष्टि, वृक्ष सब अन्न उगावें॥
वृक्ष औषधि जनक, वृक्ष भोजन का दाता।
वृक्ष जीव का गेह, राष्ट्र का भाग्य विधाता॥
भू संरक्षण वृक्ष से, हरे मरुस्थल वृक्ष ही।
वृक्ष प्रकृति आधार, अर्थ का स्रोत वृक्ष ही॥

अतएव हमें चाहिए कि हम वन सम्पदा की अधिकाधिक वृद्धि करें और उसकी सुरक्षा की ओर विशेष रूप से ध्यान दें जिससे हमें आये दिन की गहन समस्याओं जैसे अकाल, बाढ़, मरुस्थल, अनावृष्टि, अतिवृष्टि की भयंकर दुर्घटनाओं से छुटकारा मिल सके।

'श्री गौतम' के शब्दों में—

वृक्षारोहण और पोषण मानवचित धर्म है।
वृक्ष पूजन और सिंचन भी अनूठा कर्म है॥
प्रथम मानव की रही आवास ही वृक्षावलि।
फल फूल क्या निज अंक भी देती रही वन-स्थली॥

'श्री गौतम' का वृक्षों के सम्बन्ध में यह निष्कर्ष कितना सारपूर्ण एवं सत्य है—

वृक्ष है जीवन का आधार।
वृक्ष है मानव का शृङ्गार॥
वृक्ष हैं मरुभूमि का काल।
वृक्ष ही है जग का प्रतिपाल॥

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# नोटिस बोर्ड

सुदर्शनसिंह
१९६८-७० सत्र

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यदि आप इस लेख को पढ़ने जा रहे हैं तो मैं इतना तो आपके विषय में सोच ही सकता हूं कि आप पढ़े-लिखे होंगे। इसमें बुरा मानने की बात नहीं क्योंकि पढ़-लिख लेने से हीं आप सब कुछ जान जायें यह सम्भव नहीं। हाँ, तो आइये काम की बात करें, मैं आपको व्यर्थ की बातों में बहकाना नहीं चाहता।

आपने नोटिस बोर्ड का नाम तो सुना ही होगा। हो सकता है इसके उत्तर में आप नाराज होकर कहने लगें—सुना ही नहीं खूब जानता हूं। इसे हिन्दी में सूचना-पट कहते हैं, जो मुख्यतः लकड़ी का बना होता है। इसके ऊपर शीशे का आवरण या फलालैन कपड़ा चढ़ाकर इसे अत्यधिक आकर्षक बनाया जा सकता है। कभी-कभी सादा लकड़ी का तख्ता ही इस लक्ष्य की पूर्ति कर देता है। यदि आप वन-शास्त्र की शाखा "यूटिलाइजेश" पढ़े हैं तो यह भी कह सकते हैं कि लकड़ी "हार्ड", "स्ट्रांग" और "ड्यूरेबुल" परन्तु "चीप" होनी चाहिए। वन-शास्त्र की अन्य प्रशाखा "फारेस्ट इंजिनियरिंग के ज्ञान से आप यह भी बताने में नहीं चूकना चाहेंगे कि ग्लेजिंग करते समय पेन्टर्स पट्टी का प्रयोग होना चाहिए परन्तु यह सब जानते हुए भी आप नोटिस बोर्ड की तकनीकि परिभाषा से अनभिज्ञ हैं।

आप कुछ समझना चाहते होंगे और मैंने भी आपको उदाहरण के साथ समझाने का संकल्प किया है। एन० एफ०आर०सी० तो आप जानते ही होंगे। हाँ, हाँ वही उत्तरीय वन राजिक महाविद्यालय—जो एशिया स्तर की सुप्रसिद्ध प्रशिक्षण संस्था मानी जाती है। अच्छा, मैं आपको यहीं के नोटिस बोर्ड के विषय में बताऊँ। ऐसी बात नहीं कि यहाँ केवल एक ही नोटिस बोर्ड हो। आप यदि मुख्य द्वार से भीतर की तरफ जायें तो थोड़ी ही दूर चलने पर आपके दायें तरफ दो और बायें तरफ एक नोटिस बोर्ड लटकते हुए मिलेंगे। ये इतने बड़े हैं कि आपको ढूंढ़ने में कोई परेशानी नहीं हो सकती। आप यदि रूढ़िवादिता पर विश्वास करते हों तो आपको तीन अंक बुरा लग सकता है परन्तु यह ट्रेनिंग पद्धति के अनुरूप है। दूसरी बात यह भी है कि यह तीन मुख्य अधिकारियों (प्रधानाचार्य, वन शिक्षा निदेशक व अध्यक्ष प्रशिक्षण संस्थान) के शासन का प्रतीक है। अब इनकी उपयोगिता सुनिये। दाहिनी तरफ का छोटा बोर्ड केवल प्रधानाचार्य महोदय की विशेष कृपा से खुलता और बन्द होता है जिस पर एक विशेष चार्ट लगा है और ऊपर लिखा है—"अपनी करतूत देखो" watch your conduct) शेष दोनों बोर्ड सामान्य सूचनाओं से सम्बन्ध रखते हैं।

अप्रैल के शुरू में इन पर कुछ क्लोजिंग बैलेन्स के अलावा (एक या दो आदेश) कुछ भी नहीं होता और आने वाले प्रशिक्षार्थी कभी-कभी अपनी टाइ नॉट ठीक करने हेतु भी इसके सामने खड़े हो जाते हैं। परन्तु जैसे-

जैसे समय बीतता है इन पर बोझ बढ़ता जाता है। यहाँ सब ठीक-ठीक ऐसे होता है जैसे "लोकै लिटी फैक्टर्स" वन का स्वरूप निर्धारित करने के लिए उत्तरदायी हैं। सभी प्रवक्तागण व प्रधानाचार्य जी इसे भरने में अपना सराहनीय सहयोग किया करते हैं। प्राचार्य जी समय-समय पर निश्चित अवधि का वर्किंग प्लान बनाते हैं जिसे यहाँ का टाइम टेबुल कहिए। सभी कार्य इसी के अनुसार हुआ करते हैं। कार्यक्रम ग्रुप ए० और बी० तथा सेक्सनों में बंटा रहता है परन्तु वन शास्त्र में गणित की तरह सत्यता न होने से ग्रुप बी० को सम्मिलित क्लास और फिर अलग क्लास करने हेतु एक्स्ट्रा परेड करना स्वाभाविक क्रिया बनी रहती है। इस प्लान की विशेषता है २४ घण्टे प्रशिक्षार्थियों को व्यस्त रखना। इसी से सम्बन्धित अन्य पत्र भी नोटिस बोर्ड पर लगने शुरू होते हैं। पी०टी०, गेम्स का तीखा मिक्सचर पीने में यदि देर हो जाय या उपरोक्त "प्लान" के कार्यक्रम में जरा भी ढील आ जाये तो बस फिर क्या ? सम्बन्धित प्रशिक्षार्थी की तस्वीर, अधिकारी महानुभावों की कृपा व प्रधानाचार्य जी के निर्णय के अनुसार इन्हीं बोर्ड पर दिखाई देगी।

सजा के रूप निकले आदेशों का कारण भिन्न-भिन्न होते हुए भी सजा का एक जहरीला नुस्खा ही दिया जाता है, नाम है डैगर। डैगर हां जी डैगर—परन्तु लोहे का नहीं बल्कि "अपनी करतूत देखिये" बोर्ड पर सम्बन्धित व्यक्ति के सामने प्रधानाचार्य जी द्वारा दिया गया मात्र एक निशान जिसके पाने वाले का श्वसन हाकी खेलने वाले खिलाड़ी से दूना, चेहरा निर्जीव और मुँह पीला पड़ जाता है। इसे पाने वाला इसे अपनी "अनुशासन हीनता" की सजा मानता हैं। इसके अधिकारी हेतु कुछ प्रमुख कारण हैं—पी०टी० या गेम्स मे देर से जाना, परीक्षा की कापियों पर नाम लिख देना या रोल न० न लिख पाना, मेराथन दौड़ में साइकिल सवार से सहायता माँगना व अनुशासन हीन कार्य जो अधिकारियों को पसन्द न हो आदि।

लेकिन आप इस भ्रम में न रहें कि यहाँ केवल सजा देने वाली नोटिसें ही इन बोर्डों पर आती हैं। अच्छे कार्यों हेतु "स्टार" दिया जाना भी यहाँ की एक सामान्य क्रिया। हो सकता है आपको सेना के स्टार प्राप्त करने वालों की याद आ जाये। दोनों ही स्टारों में एक समानता है कि ये अच्छे कार्यों हेतु दिए जाते हैं परन्तु सेना में विभिन्न अधिकारियों हेतु स्टार लगाने की संख्या निश्चित है परन्तु यहाँ पर किसी प्रशिक्षार्थी को उतने स्टार दिये जा सकते हैं जितने सेनाध्यक्ष को भी न मिले हों। ऐसा हो भी क्यों न —इनका स्वरूप कागज का एक निशान मात्र रहता है। इसे प्राप्त करने वाला—जीतने वाली टीम का सदस्य हो, (हारने पर नहीं) या कोई भूली चीज जमा करे या अन्य ऐसा कार्य करे जो अधिकारियों को पसन्द आ जाए तभी स्टार पाने का अधिकारी होगा।

इसी "करतूत देखिये" बोर्ड को यदि ध्यान से देखा जाये तो यहाँ आपको प्रशिक्षार्थियों की तीन श्रेणी दिखाई पड़ेगी। प्रथम तो वे जिन्हें केवल स्टार मिले हैं, दूसरे वे जिन्हें न तो स्टार मिला न डैगर और तीसरे वे जिन्हें स्टार डैगर साथ-साथ मिला है। तीसरी श्रेणी के सदस्य फिर तीन अंक के चक्कर में मारे गये हैं। इनका स्वरूप कालिख चूना साथ-साथ लगे जैसा है। एक तरफ डैगर की मार और दूसरी तरफ स्टार का सम्मान। इन बेचारे को यह भी नहीं मालूम कि डैगर और स्टार का सही मान क्या है अन्यथा थम्ब रूल से माने ज्ञात कर लेते।

अब मुझे अपनी गलती का अहसास हो रहा है। मैं तो आपको नोटिस बोर्ड बता रहा था परन्तु मैं ठीक ही तो बता भी रहा हूं। यह सब इसलिए लिखना पड़ रहा है क्योंकि नोटिस बोर्ड पर छपा था एक निर्देश "वार्षिक पत्रिका ६८-६९ हेतु अपनी रचनायें दीजिये"। भगवान करे कभी आप इस नोटिस बोर्ड के चक्कर में न फसें।

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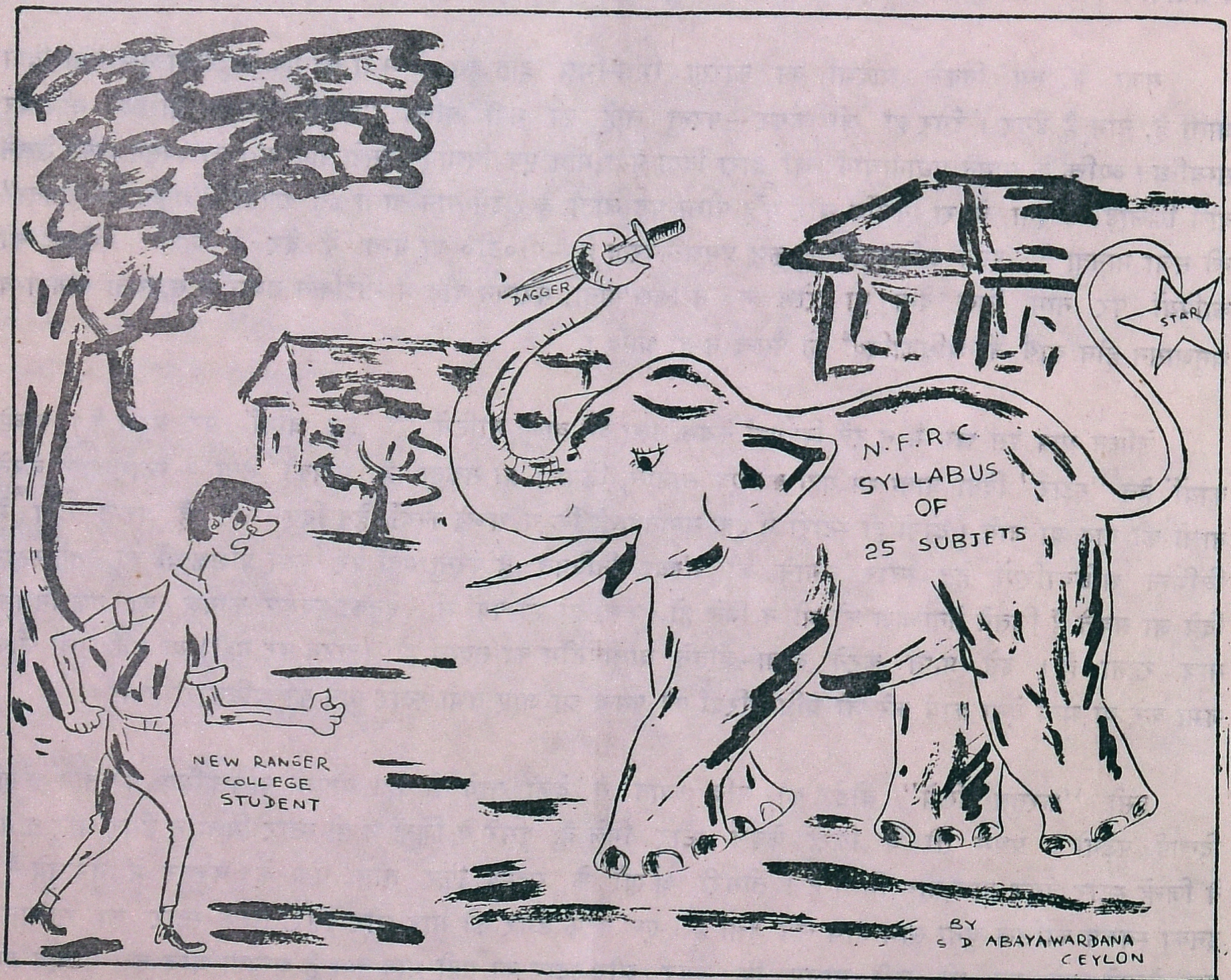

# हिमालय

लक्ष्मी किशोर शर्मा
(१९६९-७१ सत्र)

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हे मौन तपस्वी महायति, युग युग से भारत के प्रहरी।
क्या देख रहे हो निर्निमेष, कैसा विषाद करूणा गहरी॥

प्राची की प्रथम रश्मि तुझ पर, कंचन किरीट सजाती है।
जिसकी शोभा श्री निरख, प्रकृति भी अपने आप लजाती है॥

अब भी तेरी करूणा लेकर, गङ्गा यमुना नित आती है।
कल कल ध्वनि करके गीतों में, तेरी उदारुता गाती है॥

विस्तृत रत्नाकर तुझसे ही, है बना हुआ गौरवशाली।
तुझसे ही भारतमाता की, है दीख रही शुभ हरियाली॥

तुझ में ही है व्याप्त असंख्य, पन्ना, नीलम, पुखराज, हीर।
द्रुम लता स्रोत औषधि अनेक, देता है जग को विपुल वीर॥

तेरा तो मानव षट्‌रस से, परिपूर्ण सदा है हे उदार।
तुझ पर निछावर है सारा, त्रिलोकी का वैभव अपार॥

तूने देखा वैभव अतीत, जिसमें घृत, मधु, पय की सरि थी।
थे वृक्ष लता युत सघन कुंज, ऋषि आश्रम की पावनता थी॥

तेरे उपकार अपार सदा, तू ही है सच्चा तीर्थधाम।
युग युग करते आये तुझको, हे मौन तपस्वी शत प्रणाम॥

हे आदि गिरी सम्राट! तेरा ऐसा ही लता वितान रहे।
तेरी करूणा का स्रोत सदा भारत भूमि पर बना रहे॥

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# साक्षात्कार

राधारमण सिंहा
(१९६८-७० सत्र)

जलधि तल से दस हजार ऊँची पहाड़ी,
जैसे आकाश छूने की होड़ में हो,
तेज प्रचण्ड वायु, जलवायु की शीतलता
आगे बढ़ने वालों पर थप्पड़ बरषा रही हो।
अपरिमित साहस लिये मैं बढ़ता
परन्तु वह मेरे पैर से दब गया,
मैंने पश्चाताप किया और उसने
मरते मरते मुझसे कुछ कहा ॥१॥

इन्हीं झाड़ियों ने मुझे दबा दिया,
उन पशुओं ने भी मुझे रौंद डाला,
इन ठण्डी हवाओं ने भी बर्बाद किया,
बर्फ की चोट अब तक ठीक नहीं हो पायी
बीच में हिचकी आयी और वह रुक गया,
मैं डरा कहीं बात अधूरी न रह जाय ॥२॥

पुनः धीरे धीरे उसने कहा,
ये ठण्डी हवा भी बहुत कष्टप्रद है,
ये चौड़ी पत्ती वाले भी कभी कभी दबाते हैं
और अन्त में तुम भी बहाना बनकर मौत लाये।
"फर" के पौधे ने रुककर श्वाँस लिया,
मैं डर गया कहीं मर न जाय ॥३॥

"अब यह आखिरी शब्द है,
मैं तो चला पर शेष पर ख्याल रखना,
बचाना इन्हें सभी आपदाओं से,"
बस इतना कहकर वह चला गया।
उसकी लाश दबी रही घासों में
काश! उसकी बात पूरी हो जाय ॥४॥

# पश्चाताप

सुदर्शनसिंह
(१९६८-७० सत्र)

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मेरी साइकिल गाँव के एक छोर से प्रविष्ट हुई, तभी एक छोटा बालक जिसने सम्भवतः ४ वर्षात् से ज्यादा न देखा होगा, घायल होते-होते बचा। मैं साइकिल से उतर कर उस बच्चे को सान्त्वना देने लगा, परन्तु वह रोता रहा। मै अपने प्यार से उसे सन्तुष्ट नहीं कर पा रहा था, तभी एक चिरपरिचित आवाज आयी। "नमस्ते जी" और दूसरे ही क्षण मुन्ना एक युवती की गोद में ममत्व का सुख पाने लगा और मैं इस आकस्मिक साक्षात्कार पर स्तब्ध रह गया।

"वीना.........तुम ? कब से यहाँ हो ?

स्तब्धता उस तरफ भी बनी रही अतः मुझे पुनः एक प्रश्न करना पड़ा।

"यह मुन्ना.......मैं इसे पहचान नहीं पा रहा हूं, शायद........?"

वीना उत्तर में केवल मुस्कराई जो इसकी पुष्टि के लिए पर्याप्त था कि वह उस बच्चे की माँ है।

"राजू नमस्ते करो" बच्चे के लिए एक निर्देश था।

"अंकल नमस्ते" मुन्ना का निश्छल अभिवादन प्रदर्शन हम दोनों की हँसी का कारण बन गया। वीना अंकल शब्द से झेप गयी फिर इशारों से ही उसने जो कुछ कहा उसका आशय यही था कि यहाँ बात करना ठीक नहीं, वह मुझसे मिलने तुरन्त आयेगी।

एक लम्बी अवधि के बाद घर आने पर भी परिवार के अन्य लोगों से मिलने में मुझे केवल औपचारिक सुख ही मिला। मेरा अशान्त मन एकान्त चाहता था, जहाँ मैं अपनी शान्तिदेवी को समक्ष देखता और पुनः एक बार स्वयं को सच्चा सुख पाते देख पाता। मैं एकान्त ढूंढने के लिए अपने अध्ययन कक्ष में चला गया और अधीरता के साथ वीना की प्रतीक्षा करने लगा। पुरानी स्मृतियाँ उभड़ने लगीं। वे दिन भी याद आये जब मैं बी०एस०सी० फाइनल में था और वह थी इन्टरमीडिएट फाइनल में। वीना गाँव के नाते मेरे घर बहुधा आया करती थी परन्तु हम दोनों में न तो मेल था न विरोध। क्या पता था कि एक छोटी घटना भी यौवन प्राप्त कर रहे युवक-युवतियों को लैंगिक आकर्षण व प्यार की तरफ आकर्षित कर सकती है। वह दिन भी याद हो आया जब मेरे प्रकाशित एक साहित्यिक लेख के प्रति अपनी शुभकामना व्यक्त करते हुए उसने कहा था—आपका लेख मुझे बहुत ही अच्छा लगा और मैंने भी बिना संकोच के उसका माथा थपथपा दिया था। दूसरे ही क्षण वीना का मुखड़ा एक मधुर लालिमा से निखर उठा था और यही था हम दोनों के जीवन में प्यार के लिए पहला आमन्त्रण।

अब हम दोनों के पारस्परिक सम्बन्धों में एक विशिष्टता आ गयी। विचारों तथा भावनाओं में परिवर्तन आने लगा और हम लोग नजदीक आने लगे। सौभाग्यवश हम लोग अपने विद्यालयों से प्रतिदिन घर आ जाते अतः एक दूसरे के सानिध्य तथा दर्शन मात्र से ही असीम शान्ति व अपरिमित सुख मिलता रहा। इस स्थिति में एक परिवर्तन यह आया कि हम बात करने के लिए एकान्त चाहने लगे और अन्य लोगों के समक्ष आँख मिलाने में भय व संकोच होने लगा। यही था समाज द्वारा प्रदत्त अंकुश की छाया जो प्रेमियों के समक्ष सदैव समस्या के रूप में आती है।

हम दोनों की फाइनल परीक्षायें लगभग साथ ही शुरू हुई और सफलतापूर्वक समाप्त भी हो गयी। यद्यपि इन दिनों पूर्ण एकाग्रता का अभाव रहा फलतः अध्ययन में कुछ असुविधा अवश्य आयी थी फिर भी परीक्षा के स्वागत में कोई कमी न रही। इसके बाद का कुछ दिन बहुत ही शान्ति व सुख के साथ बीता। हम दोनों और समीप होते जा रहे थे। रात अन्धेरा ही नहीं, बल्कि गहरा विषाद लेकर आती और दोनों ही के लिए इस विरह बेला को बिता पाना बहुत कठिन होता था परन्तु ऊषा के आगमन पर हम चहक उठते थे और सबसे पहले एक दूसरे का दर्शन कर ही दुनियाँ की किसी और वस्तु पर दृष्टि डालते थे। अभाग्यवश इन सुखद क्षणों को हम स्थिरता न दे सके और वीना एक दिन मेरे समक्ष एक क्रान्तिकारी निर्णय लेकर पहुँच आयी।

"आपसे मुझे एक विशेष बात करनी है", उसने मेरे व्यक्तिगत कक्ष में आकर कहा था।

"वीना, तुमसे ज्यादा अपना हो ही कौन सकता है। बात करने के लिए आज तुम्हें औपचारिकता की आवश्यकता क्यों पड़ी ?" मैं उसके समीप आ गया और उसके गालों पर बिखरे बाल ठीक करने में असीम सुख की आशा कर कुछ कहने ही वाला था कि वह रो पड़ी। मैं गम्भीर हो चला और बड़ी करुणा के साथ रुंधे कण्ठों से कहा – "वीना, क्या बात है, आज तुम्हें क्या कष्ट हो गया। मैं तुम्हें कभी कष्टमय नहीं देख सकता।"

"मैं आपसे एक भीख माँगने आयी हूं........" और वह सिसक पड़ी।

"मेरा सब कुछ तुम्हारा ही है वीना ! तुम स्पष्ट कहो बात क्या है ? तुम्हारे लिए मैं क्या नहीं कर सकता ?" मैंने सजल नेत्रों व व्यथित हृदय से कहा।

इसके बाद वीना ने जो कुछ कहा उसकी मुझे कल्पना भी न थी। उसका निर्णय था मुझे अपने जीवन साथी के रूप में वरण करना। मेरे समक्ष समाज की विषम स्थिति व कठोर बन्धन नाच उठे जिन्हें तोड़ना आसान नहीं बल्कि असम्भव था। मुझे ऐसा विश्वास भी न था कि वीना ऐसा निर्णय भी ले सकती है। इसकी सम्भावना भी कैसे हो सकती थी। एक ही गाँव के विभिन्न जातियों से सम्बन्धित हम सामाजिक रूढ़ियों के कारण प्रणय-सूत्र में कैसे बंध सकते थे ? मैंने वीना को बहुत समझाया कि यह निर्णय न्याय-संगत नहीं और अदूरदर्शिता है। भावों में बहकर जीवन को विनष्ट करना अनुचित है परन्तु वह केवल आँसू बहाती रही और अपना हठ दुहराती रही। मैं उसकी बात मानने में उसकी ही भलाई का लेश भी नहीं देखता था अतः उसे अपना निश्चय बदलने का सप्रेम आग्रह करता रहा, परन्तु मेरा दर्शन व सैद्धान्तिक विवेचन उस पर कोई परिवर्तन न ला सका। उसके आँसुओं ने

उसे ही नहीं बल्कि मुझे भी गोला कर दिया परन्तु मैं उसके सही भविष्य निर्माण में इस निर्णय को गलत समझ रहा था। लम्बी वार्ता के बाद मैं उसे सान्त्वना देकर विदा किया और स्वयं चिन्ता में गोते लगाता रहा।

ऐसा भी नहीं कि मैं कायरतावश समाज से विरोध बढ़ाने में डरता था या वीना के प्रति प्रेम न रखता था परन्तु मैं यही सोचता रहा कि इसका एक सुन्दर विकल्प भी हो सकता है। वीना के पिता उसी रात मुझसे मिले जिनको अपनी बेटी के इस निर्णय ने बहुत चिन्तित कर दिया था। मुझे उनसे ही यह भी मालुम हुआ कि वे उसके लिए एक रिश्ता भी तय कर चुके हैं। मैं उनकी चिन्ता देख द्रवित हो गया और मैंने विश्वास दिलाया कि मैं उनकी पूरी सहायता करूँगा।

.... और वीना की शादी भी हुई, वहीं जहाँ उसके पिता चाहते थे परन्तु मैं उस शहनाई की मधुर आवाज में रोती हुई दुल्हन के दिल की आवाज सुनने का अवसर न पा सका। मैं तो उसी रात गाँव छोड़कर चला आया था। जब मैं घर लौटा तब वीना अपनी ससुराल चली गयी थी। वही वीना जो मेरी अनुपस्थिति में भी अपने निर्णय को दुहराती रही और अन्त में सामाजिक बन्धन उसे स्वीकार ही करना पड़ा। तभी से आज तक मुझे यही लगता रहा कि गाँव के सभी मधुर स्थल जहाँ हम मिला करते थे मेरी कायरता पर हँसते हैं। आज पाँच वर्ष बाद वह मुझे अकस्मात मिली थी।

प्रतीक्षा के क्षण बड़े कष्टप्रद रहे और विगत स्मृतियाँ उस पर एक नया घाव बना गयीं। मैं अधीर होता गया और चिन्ता की उच्चतम पराकाष्ठा प्राप्त कर लिया परन्तु वीना नहीं आयी। मैं उसे "बेवफा" नहीं कह सका क्योंकि उसका सन्देश मुझे मिला जिसे उसने अपने छोटे भाई के हाथ भेजा था। पत्र के आशय ने मुझे किंकर्त्तव्य-विमूढ़ बना दिया। पत्र का एक अंश मेरे ध्यानाकर्षण केन्द्र बना रहा—

"मैं अपनी छोटी बुद्धि से बीती बातों पर टिप्पणी कर ही क्या सकती परन्तु इतना अवश्य सोचती हूं कि आपने जो कुछ भी किया होगा उसमें मेरे प्रति भलाई के ही भाव निहित रहे होंगे। मैंने तो आपको अपना सर्वस्व न्योछावर करने का निर्णय कर लिया था परन्तु अभागों के सुख स्वप्न सच्चे ही कब हुए हैं। यदि देव को पुजारी के पुष्प स्वीकार ही न हों तो यह तो उस पुजारी का दुर्भाग्य ही कहा जा सकता है। आपको कैसे समझाऊँ, अब भी भावनाएँ विगत स्मृतियों की तरफ ले जाती हैं और आपके दर्शन हेतु उतावली बन जाती हूं परन्तु नारी की सीमा रेखा सिन्दूर मुझे अतिक्रमण करने से रोकती है। आत्मा कहती है अब मैं कहीं और अर्पित हूं अतः आप जैसे देव को, किसी अन्य को अर्पित पुष्प चढ़ाकर अपमान करना अनुचित समझती हूं। विश्वास है आप मुझे क्षमाकर सदैव आशीष देने की कृपा करते रहेंगे।"

आपकी ही "वीना"

और मुझे क्या मिला ? केवल मेरी आँखों से निकलती पश्चाताप की बूंदे जिनसे उसका पत्र भीग रहा था।

---

# कवि जैसी वन में पवन गुनगुनाती फिरती

डी०पी० रिछारिया
(१९६८-७० सत्र)

———

वन जीवन को सन्देश प्रकृति का देते हैं,
वे मार्ग प्रगति का मानव को दिखलाते हैं।
वे आकर्षण तो हैं ही धरती माता के–
मानव हित में वे कई वस्तु उपजाते हैं॥

वन किसी राष्ट्र की महा सम्पदा के रक्षक,
वन में मानव का मन निर्मल हो जाता है।
कवि जैसी वन में पवन गुनगुनाती फिरती,
वन से सन्देश शान्ति का नित नव आता है॥

उत्तुंग वृक्ष देते हैं उन्नति की शिक्षा,
एकत्व बताता है वन का गहरा होना।
वन-जीवन में है निहित कि सह-अस्तित्व पाठ,
किस तरह चाहिये मिल-जुलकर सबको रहना॥

बरगद के आश्रय फैली बेल सदा कहती,
दे सबल सदा निर्बल को आश्रय बिना स्वार्थ।
है त्याग सचेतनता का सबसे बड़ा पाठ,
हर मनुज हृदय में जगे सत्य, वह हो निस्वार्थ॥

जब कभी भावना का घर्षण बढ़ जाता है,
बासों के वन में दावानल लग जाता है।
वह चीख-चीखकर कहता 'द्वेष बुरा होता',
जो जलता दूजों से वह खुद जल जाता है॥

हर झरना कहता, 'करो तृप्ति का महादान',
हर पुष्प कहे, 'फैला दो युग में सुखद गन्ध'।
हर एक पहाड़ सीना ताने, ईमान खड़ा,
कहता, 'असत्य के लिए सदा है द्वार बन्द'॥

———

# वसीयत

अनिलकुमार श्रीवास्तव
(१९६८-७० सत्र)

प्रिय आँसू आते हैं..........
इसलिए नहीं कि जीने की चाह है।
चेतना निर्मुक्त मन में उम्र को यदि कैद करूँ
..........उम्र रो देगी।

विधवा की कल्पना कुल्टा न बना दे उसे,
अतः मन की कामनायें तुमको सर्मपित हैं।
सांसें जो आती हैं वे हैं अर्पित तुम्हें,
गर्वमुखी जीवन के क्षण-क्षण को वंदन है।

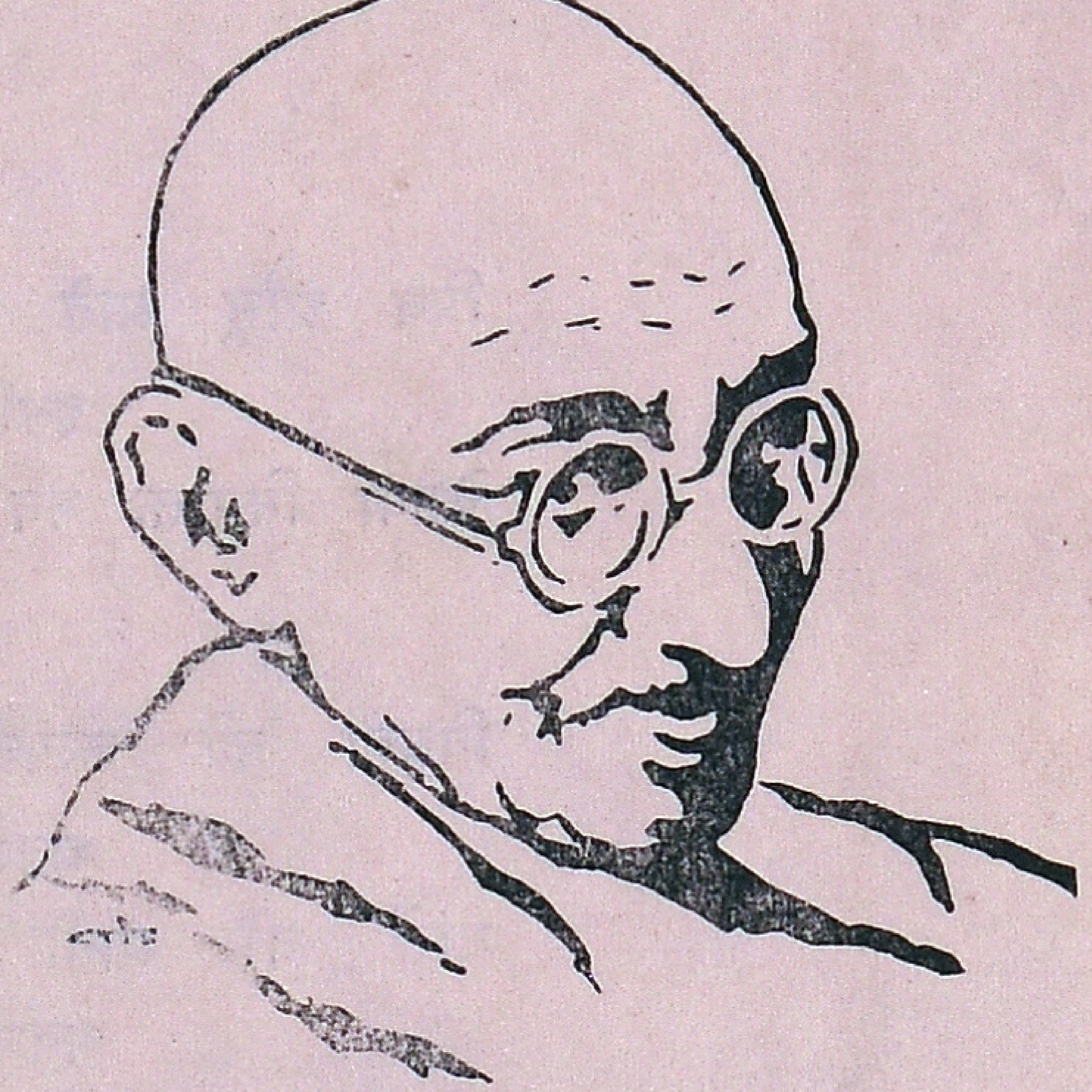
सच है कि धरती पर हम पेड़ और पौधे हैं,
मिलकर समाज में जंगल हैं वन हैं।
फिर भी जनतन्त्र की आहों को पाल पाल,
गोद में ले मानव हम प्राण भी सजोये हैं।

साल आम महुए हम वोधि गुलाब चन्दन हैं,
तपकर भी जलकर भी शीतल बन उनके हैं।
फुहारों से सींच-सींच हँसते हम साथ-साथ,
फूल और फलों से लाभान्वित हम करते हैं।

बालू से सागर तट दौड़-दौड़ कहते हैं,
आओ हम आ चुके वैभव बिछा चुके।
ले जा उपहार तू हँसने व जीने को,
कर लो उपकार यह शिक्षा तुम पा चुके।।

———

# बापू ने कहा था



अगर हम सब हर साल नये-नये पेड़-पौधे लगाने का फैसला कर लें तो सूखे और रेतीले इलाके हरे-भरे बागों में बदल जायेंगे।

*           *           *

वृक्षारोपण समारोह का सुझाव केवल कपोल-कल्पना नहीं है। न ही वह धनवानों के मनोरंजन के लिए है। उसका यही उद्देश्य है कि दूसरे लोग उसका अनुकरण करें और देश की सम्पत्ति बढ़ावें।

*           *           *

मुझे उसमें (वृक्ष पूजा में) गहरी करुणा और काव्यात्मक सौन्दर्य दीख पड़ता है। वह उस समस्त वनस्पति जगत के प्रति सच्ची श्रद्धा का प्रतीक है, जो अपने सुन्दर आकारों और रूपों के अनन्त दृश्य-पटल द्वारा मानो करोड़ों जिह्वाओं से ईश्वर की महिमा और गरिमा की घोषणा करता है।

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